

2007

An examination of the presence of social work intervention with home health care recipients of related home health care outcomes

Corie Gail Hebert

Louisiana State University and Agricultural and Mechanical College, corie.hebert@lsu.edu

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_dissertations



Part of the [Social Work Commons](#)

Recommended Citation

Hebert, Corie Gail, "An examination of the presence of social work intervention with home health care recipients of related home health care outcomes" (2007). *LSU Doctoral Dissertations*. 263.

https://digitalcommons.lsu.edu/gradschool_dissertations/263

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Doctoral Dissertations by an authorized graduate school editor of LSU Digital Commons. For more information, please contact gradetd@lsu.edu.

AN EXAMINATION OF THE PRESENCE OF SOCIAL WORK INTERVENTION
WITH HOME HEALTH CARE RECIPIENTS AND RELATED HOME HEALTH
CARE OUTCOMES

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College in
partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The School of Social Work

by
Corie Gail Hebert
B.A., Auburn University, 1989
M.S.W., University of Alabama, 1991
May, 2007

ACKNOWLEDGEMENTS

I would like to acknowledge those persons in my life who enabled me to start, and more importantly, finish my pursuit of a Ph.D. First, I would like to thank my father and mother, Robert and Diane Hebert for instilling the value of reaching for higher educational goals, and for emotionally and financially supporting me so I could achieve those goals. I am also grateful to my immediate and extended family members for support and encouragement, particularly those who babysat for my daughters so I could attend evening classes and write on the weekends. I am thankful to my daughters, Lindsey and Celia who graciously managed when my mind and body was busy with school. I would also like to thank my friends and colleagues who offered support and empathy when it was needed most.

My sincere thanks must go out to my committee members, past and present. Dr. Timothy Dyeson helped me to conceptualize and work through the early struggles of designing my study and gaining access to a home health agency willing to let me make the project a reality. Dr. Mohan, Dr. Allen, and Dr. Monroe gave me much appreciated support and feedback and Dr. Burnett gave me an immeasurable amount of guidance and support. I am greatly appreciative of Dr. Tim Page's willingness to take me on as a student when I was already partially through the process, and for his time and effort in helping me to make it a piece of work I could be proud of.

Lastly, I would like to thank The Louisiana Home Care Association, The Louisiana Health Care Group and St. Landry Homecare in Opelousas for allowing me to conduct the study within their organization. I am specifically grateful to Heidi Landry for helping me gain access to the data and for navigating the system for me.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	ii
LIST OF TABLES.....	v
ABSTRACT.....	vii
CHAPTER	
1	INTRODUCTION.....1
	The Growth of Home Care.....2
	Area of Concern: The Advancement of Managed Care..... 4
	Managed Care Enters the Home Health Care Arena..... 6
	Social Work's Role in Home Health Care.....11
	Purpose of the Study..... 15
	Objectives..... 16
	Research Hypotheses and Questions Using Final
	Disposition as the Dependent Variable.....17
	Research Hypotheses and Questions Using Length of Stay
	In the Community as the Dependent Variable..... 18
	Assumptions/Limitations of the Study.....19
2	REVIEW OF LITERATURE..... 22
	Theoretical Model..... 22
	Systems Theory..... 23
	The Impact of Managed Care Policies on Home Health
	Care Services..... 25
	Social Support Networks..... 28
	Social Work Intervention with Support Systems..... 31
	Research on Social Work in Home Health Care..... 34
	Social Work Intervention and Health Outcomes..... 36
	Social Workers as Discharge Planners..... 38
	Predictors of Long-term Care..... 42
3	METHODOLOGY..... 47
	Sample..... 47
	Research Design and Measurement..... 49
	Dependent Variables..... 49
	Independent Variables..... 52
	Data Analysis.....56
4	FINDINGS.....57
	Objective One..... 57
	Objective Two.....63
	Objective Three..... 67
	Objective Four..... 75
	The Research Hypotheses and Questions..... 83

5	SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATION.....	94
	Methodology.....	94
	Summary of the Findings.....	96
	Conclusions, Implications and Recommendations Related to The Study Population.....	102
	Conclusions, Implications and Recommendations Related to Home Health Care Recipient’s Support System.....	104
	Conclusions, Implications and Recommendations Related To Receiving Social Work Services.....	105
	Conclusions, Implications and Recommendations Related To the Study’s Outcome Measures.....	109
	Final Conclusions.....	115
	Assumptions/Limitations of the Study.....	116
	Advancement of Social Work Knowledge.....	118
	REFERENCES.....	119
	APPENDIX	
	A. LSU INSTITUTIONAL REVIEW BOARD PROJECT REPORT AND CONTINUATION OF APPLICATION AND CONSENT FORM.....	128
	B. OUTCOME AND ASSESSMENT INFORMATION SET (OASIS-B1).....	131
	C. PRIMARY DIAGNOSES CONTAINED IN THE DATA SET.....	150
	D. WORLD HEALTH ORGANIZATION INTERNATIONAL CLASSIFICATION OF DISEASES.....	153
	E. REASONS FOR THE SOCIAL WORK REFERRAL AS LISTED BY THE VISITING NURSE.....	155
	F. PSYCHOSOCIAL NEEDS AS IDENTIFIED BY THE SOCIAL WORKER.....	158
	VITA.....	160

LIST OF TABLES

1	Marital Status of Home Health Care Recipients at the Time Home Health Services Began.....	59
2	Primary Medical Diagnosis of Home Health Care Recipients Leading to Receiving Home Health Care Services.....	61
3	Total Number of Medical Diagnoses of Home Health Care Recipients.....	62
4	Comparison of Clients Who Received Social Work Services and Clients Who Did Not Receive Social Work Services on Selected Demographic Characteristics.....	64
5	Cross-Classification of Home Health Care Recipients Who Received Social Work Services By Their Gender.....	65
6	Cross-Classification of Home Health Care Recipients Receiving Social Work Services Those Not Receiving Social Work Services Based on Their Medical Prognosis.....	66
7	Reasons Home Health Care Recipients a Social Work Referral.....	68
8	Number of Social Work Visits Home Health Care Recipients Received.....	69
9	Primary Psychosocial Needs of Home Health Care Recipients as Identified by the Social Worker.....	71
10	Secondary Psychosocial Needs of Home Health Care Recipients as Identified by the Social Worker.....	72
11	Tertiary Psychosocial Needs of Home Health Care Recipients as Identified By the Social Worker.....	73
12	Total Number of Home Health Care Recipient Psychosocial Needs Identified by the Social Worker.....	74
13	Activities of Daily Living Scores of Home Health Care Recipients at Admission.....	76
14	Activities of Daily Living Scores of Home Health Care Recipients at Discharge.....	77
15	Instrumental Activities of Daily Living Scores of Home Health Care Recipients at Admission.....	78
16	Instrumental Activities of Daily Living Scores of Home Health Care Recipients at Discharge.....	79

17	Primary Support/Care Person.....	80
18	Frequency of Caregiver Support Provided to Home Health Care Recipients.....	81
19	Assistance Provided to Home Health Care Recipients by the Primary Caregiver.....	83
20	Logistic Regression Analysis of Social Support, Functional Status, Age, Race, Gender and Social Work on Final Disposition of Home Health Care Recipients.....	88
21	Classification Results for Discharge Disposition Outcomes.....	89
22	Collinearity Diagnostic Measures for Regression of Length of Time Receiving Home Care Services on Selected Demographic Data and Social Work Intervention.....	91
23	Regression of Social Work, Functional Status, Social Support, Race, Age And Gender Using Length of Time Receiving Home Care Services as The Dependent Variable.....	92

ABSTRACT

The study was prompted by the need for a social work response to the dramatic changes that have occurred in the home health care arena as a result of managed care policies. Social work has been a part of home health care since its inception, but the current cost constrained market threatens the viability of social work in providing services to elderly, ill, homebound individuals.

Medicare home health care benefits have traditionally enabled many elderly individuals to live independently in their communities. However, passage of the Balanced Budget Act of 1997, which mandated the use of a Prospective Payment System for service reimbursement, has altered the delivery of home health services for many individuals (Liu, Long & Dowling, 2003). As a result, the focus on patient outcomes and the delivery of cost effective quality care has intensified.

The study examines the nature of social work services provided in the home health care arena and the relationship between home health care recipient outcomes and a variety of functional and demographic variables as well as social work services. The study utilizes final disposition at discharge from home health care services, and the length of time a recipient is maintained in the community setting through the delivery of home health care services as outcome measures. The key variables of interest are the presence of social work services, the patient's functional status, caregiver status, and the demographic variables age, race and gender.

This study is exploratory in nature. It identifies descriptive characteristics of the sample of home health care recipients who received home health care services from one home health care company located in South Central Louisiana between January 1, 1999 and January 1, 2005. It explores the nature of social work intervention following the

passage of the Balanced Budget Act of 1997. Unfortunately, the study results indicated that social work services have become very limited in scope. The major findings indicated that the patient's ability to ambulate independently was a good predictor of his or her ability to remain in the community. They also indicated that the patient's ability to prepare for and plan meals was the only variable to influence the number of days the patient received home care services. Implications for social work are discussed.

CHAPTER 1

INTRODUCTION

The face of health care in America is rapidly changing. The growing aging population, advances in medical technology, and the need to control health care costs, have all impacted today's health care policies. These factors have fueled the need for health care reform. Recent health care policies have focused on improving quality of care while also attempting to harness the rising cost of health care.

The need for health care reform is heightened by the vast growth in the aging population. It is estimated that by the year 2030, the number of elderly persons will increase to approximately 20% of the population (U.S. Census, 2000). Elderly persons are the largest consumers of health care services, and the cost of providing those services continues to rise (U.S. Department of Health & Human Services, 2004).

The large consumption of health care services by the elderly is largely related to the incidence of chronic physical and mental conditions that increase with age (Hooyman & Kiyak, 2005), often robbing the elderly of their independence. Estimates show that more than 12 million Americans need help from family, friends and formal service providers due to chronic diseases and disabilities that interfere with activities of daily living and self care (United States Department of Health and Human Services, 1995). Chronic diseases are long-term illnesses that are rarely cured. According to the Older Americans Update (2006), heart disease, stroke, cancer and diabetes are the most common chronic health conditions. Smith (1999) reported that as many as 3 million elderly persons with acute and chronic illnesses rely on the Medicare home health benefit to receive medical care at home, thus allowing them to remain in their homes versus an institution.

The Growth of Home Health Care

Historically, family members and private-duty visiting nurses cared for the sick and disabled at home. Buhler-Wilkerson (2001) documented the provision of community-based care by private agencies, such as Visiting Nurse Societies, as early as 1886. Prior to any government involvement in the provision of home care services, private insurance agencies such as Blue Cross utilized visiting nurse services in an effort to reduce medical costs following early discharge of patients from hospital care (Buhler-Wilkerson, 2001).

In 1966, Title XVIII legislation of the Medicare program provided for the creation of certified home health agencies. Elderly and some disabled non-elderly persons are eligible for Medicare coverage of medical home health care visits delivered by Medicare certified home health agencies (Spector, Cohen & Pesis-Katz, 2004). At its creation, the Medicare home health benefit was designed to be a brief, time-limited intervention that could help to reduce the length of an individual's hospital in-patient stay (Vladeck, 2000). According to the Home Health Agency Manual (Centers for Medicare and Medicaid Services, 2003), Medicare coverage for home health services includes: part-time or intermittent nursing care by a registered professional nurse; physical, occupational, or speech therapy; medical social services and part-time or intermittent services of a home health aid. A recipient must be considered homebound, or not able to leave his home without "considerable and taxing effort". In addition, the services needed must be medically "reasonable and necessary", and the patient must be under the care and supervision of a physician (Centers for Medicare and Medicaid Services, 2003). Ideally, the goal of home care is to maximize the independence of the patient and his or her caregiver so that an individual can remain at home rather than be institutionalized.

In the 1980's, a number of factors contributed to growth in the utilization of Medicare's home health care benefit. A Prospective Payment System for inpatient hospital care under Medicare was introduced in 1983, and the resultant shortened hospital stays increased the demand for home care services (Vladeck, 2000). In 1988, the Federal court decision of *Duggan v. Bowen* expanded eligibility requirements for care and eliminated the cap on the number of home care visits an individual could receive, making it possible for more frail elderly people to receive home care for longer periods of time (Stein, 2000).

During this same period, the aging population began to grow at an unsurpassed rate. In addition, technological advancements began allowing people with highly technical medical needs to be cared for at home. Improvements in durable medical equipment for the home, prescription drug developments and knowledge of how to manage chronic conditions at home, all contributed to an improved environment for home care, as well as the growth in home care utilization (Demel & Baker, 2000).

Along with this growth came a rapid increase in Medicare home health care expenditures. In 1967, one year after its creation, Medicare's home care outlay was \$46 million (National Association for Home Care, 1997). From 1986 to 1996 Medicare spending on home health care grew from \$3 billion to \$18 billion. In addition, the number of beneficiaries doubled each year, and the visits per beneficiary more than tripled (Prospective Payment Assessment Commission, 1997). The Government Accounting Office (1999) estimated an average annual growth rate in the home health area of 25.2 percent, compared to an 8 percent growth in the Medicare program as a whole from 1990 to 1997. By the 90s, The Health Care Financing Administration (HCFA), the federal agency administering Medicare and Medicaid, had identified home

health care services as the fastest growing Medicare expenditure (Health Care Financing Administration, 1997).

The rapid expansion of home care utilization began in 1989 after the federal court decision in *Duggan v. Bowen* (Health Care Financing Administration, 1997), and by the early 90's it was recognized that the cost of home care was burdening the Medicare system. Attention was also drawn to the fact that Medicare home health benefits were being used as a long-term care option for the chronically ill, rather than a brief treatment following hospitalization as originally intended (Bishop & Skwara, 1993). This was in part due to the *Duggan* decision, which allowed patients who needed care for chronic, long-term conditions as well as acute post hospital care to receive home health benefits (Demel & Baker, 2000).

The Inspector General began delivering reports of Medicare overpayments, which resulted in a loss of billions of dollars to the Medicare system (Health Care Financing Administration, 1997). Then, in 1995, concern over the dramatic rise in the use and possible abuse of Medicare home health services prompted the Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration), the Office of the Inspector General, and the Administration on Aging to implement Operation Restore Trust (ORT), (McCall, Petersons & Moore, 2003). Operation Restore Trust was a program that trained state surveyors to review home health agencies and look for cases of fraud and abuse (Health Care Financing Administration, 1997). This was the Federal government's first attempt at trying to control soaring Medicare expenditures.

Area of Concern: The Advancement of Managed Care

The rising cost of health care is a predominant factor fueling current health care reform efforts (Corcoran, 1997). As health care costs continued to rise, the concept of

managed care evolved as a strategy for controlling the expenditure of health care dollars (Corcoran, 1997). Managed care may be thought of as an umbrella for government and private industries attempting to regulate and control health care services (Cornelius, 1994). Among the various managed care tactics, capitation systems are a popular means of limiting costs (Berkman, 1996). In contrast to a fee-for-service system, capitation systems pay a fixed amount for the care that is rendered based on a patient's expected needs (Corcoran, 1997). This is significant because revenue is earned up front rather than after services have been provided. While costs will exceed reimbursement rates for some patients, others are more than adequately reimbursed (Elias, Ferry & Treland, 2000).

In 1982, the capitation system of Diagnostic Related Groups (DRGs) was instituted in the Medicare payment of acute hospital care (Corcoran, 1997). DRGs attempted to control the rising cost of acute hospital care by putting a cap on the number of days a hospital could receive reimbursement for patient care, dependent on the patient's diagnosis (Cornelius, 1994). DRGs also established prospective payment systems. Patients were said to be sent home "quicker and sicker" from hospitals (Demel & Baker, 2000). The institution of DRGs in acute care settings significantly contributed to the shift of health care dollars to home health care services, as well as nursing facilities and sub-acute hospitals (Demel & Baker, 2000).

In short, managed care policies in the health care industry are a means of controlling the utilization of healthcare, as well as payment for those services. A number of concerns have been posed regarding managed care, including the question of whether cost containment hurts quality. In a review of the literature on managed care, Lohmann (1997) cites studies that have pointed out some of the unfavorable effects of managed

care, most prominently deterioration of quality of care, access to care, and provider patient relationships.

Managed Care Enters the Home Health Care Arena

As a result of the increased Medicare spending on home health care and the pressure Congress felt to try and balance the Federal budget, a managed care strategy was instituted in the provision of home health care services (Stein, 2000). Radical changes were made in the system to both insure recipients were receiving adequate care and to halt the explosion in spending of Medicare home health care dollars (Komisar, 2002). As a result, home health care has experienced a transition similar to that which hospitals experienced when DRGs went into effect to control the cost of acute hospital care.

With passage of the Balanced Budget Act of 1997 (BBA), Congress addressed the growth of home health care expenditures. As of October 1, 2000 the Balanced Budget Act mandated the use of a prospective payment system (PPS) for home health care reimbursement (Federal Register, 2000). Currently, participation in the home care PPS is a condition of participation for all home care agencies providing services to Medicare recipients (Health Care Financing Administration, 1997). In other words, agencies must abide by the PPS regulations to receive reimbursement from Medicare.

The prospective payment system for home care mandated by the Balanced Budget Act is very similar to the DRG system in hospital reimbursement. Under PPS, agencies are paid a base rate for each 60-day episode of care that is modified to reflect the severity or complexity of each patient's needs (Elias, Ferry & Treland, 2000). The payment rate is also determined prior to service being rendered. Before October 1, 2000, home health care providers were under a fee-for-service reimbursement system. Under this system, there were no limits on Medicare payments for services an agency rendered as long as the

services were skilled services (registered nurse care, physical therapy, occupational therapy or speech therapy) and the services were deemed medically necessary by the patient's physician (Medicare Home Health Agency Manual, 1997). The PPS reimbursement system encourages agencies to cut costs while also increasing efficiency of care.

The purpose of managed care is twofold, namely to contain cost and ensure quality (Corcoran, 1997). The advancement of managed care through all facets of health care delivery has necessitated the development of complex outcome studies designed to demonstrate the provision of effective, cost controlled care. Berwick and Knapp (1987) define outcomes as end products of care. Traditionally, attempts to measure structure and process, have been linked to outcomes of care. With the introduction of PPS, the home care industry became faced with the task of proving that certain processes yielded the desired outcomes central to home health care.

Because managed care policies also attempt to ensure quality of care, the introduction of a PPS system into home care also heightened an awareness of the need for a quality assurance program that could help to ensure patients were receiving quality care, (Kramer, Shaughnessy, Bauman and Crisler 1990). Concerns for quality, cost control and health care outcomes ultimately compelled researchers in the field to develop a tool known as the Outcome and Assessment Information Set (OASIS) for home care (Home Health Care Outcome and Assessment Information Set, 1999). OASIS was originally a 79-item outcome tool that resulted from twelve years of national research funded by the Health Care Financing Administration and the Robert Wood Johnson Foundation (HCFA, OASIS Overview, 2001).

OASIS was designed to be an outcome measure that could be used to assess home health care quality (OASIS Overview, 2001). According to Shaughnessy, Crisler, Schienker and Hittle, (1999), the items on OASIS have been refined and continue to be refined through clinical and empirical research. OASIS-A was nationally tested in 1996; agencies are now using a revised OASIS B1 form. It is designed to measure outcomes defined as a change in health status between two or more time points, at the start of patient care, at 60 day intervals, and at discharge from care.

It should be noted that OASIS was originally established to assess areas of care needing improvements, which could then be used to improve the quality of patient care and the outcomes of that care, while simultaneously “protecting taxpayer’s dollars and the integrity of the Medicare and Medicaid programs” (Home Health Care Outcome and Assessment Information Set, 1999). Therefore, there are actually two functions that OASIS performs. First, the OASIS data are generated into outcome reports by which agencies can compare their outcomes to those of other home health agencies with similar patients. The outcome reports enable agencies to conduct quality improvement activities by helping them to target certain aspects of care with the goal of improving particular outcomes. The second function of OASIS is to supply data that are put into a case-mix model, which predicts each patient’s resource needs per episode of care (60-day period) (Crisler & Richard, 2002).

The second function has little to do with quality of care, and more to do with controlling the cost of home care. The case-mix model is used to estimate the financial cost of providing care to each patient who receives home health care services. The case-mix model uses OASIS data to predict each patient’s resource needs. OASIS data are collected primarily by the visiting nurses and put into a case-mix adjustment system

known as the Home Health Resource Groups (HHRGs), which takes into account the resource use of different patient types. The purpose of HHRGs is to measure the intensity of care and services required for each beneficiary and translate it into a payment level, or a dollar amount that an agency is eligible to receive for providing care to that beneficiary.

Patients are categorized by measurements on three basic components that formulate the case-mix, to include: a.) clinical severity, such as diagnosis, b.) functional status according to status on activities of daily living, and c.) service utilization, based on previous use of medical services. Measurements of these components are assigned weights based on data collected by the OASIS tool, which ultimately rates the severity of the patient's condition. A payment rate is then determined based on the case-mix data and a national standard payment rate (USDHHS: HCFA, 2000). In summary, the case-mix model takes into account the resource use of different patient types and translates the information into a payment level that home health providers are paid prior to rendering the care.

Outcomes are influenced by numerous variables, to include the patient's home environment, the natural progression of illness, health care services the patient has received or is receiving, and caregiver support. Therefore the task of developing quality of care indicators was a complex one. Twelve years of research and numerous field test of the OASIS instrument led to the identification of process quality measures that related to key attributes of care that could be linked to specific outcomes (Kramer, Shaughnessy, Bauman & Crisler, 1990). Because home health care services are designed to improve or maintain functioning, the measurement of functional status between specific times points is a popular means of measuring quality care, as well as the influence of home health care services on patient outcomes.

Another fundamental difference between the old fee-for-service system of reimbursement and PPS is that the prospective payment system requires that the standard payment rate agencies receive for providing care cover the care provided by all disciplines, all routine medical supplies, and any out-patient therapy cost (USDHHS: HCFA, 2000). Therefore, home health agencies are now being held accountable for meeting the total needs of their patients, while at the same time being reimbursed based only on the patient's clinical severity, functional status and service utilization history, which is adjusted based on a national standardized payment rate.

Unfortunately the current reimbursement model, which guides the provision of home health care services, ignores the impact of psychosocial factors on healthcare outcomes. The model is based on an acute care model in which illness is treated as a single isolated event, treatment is prescribed and the patient is discharged. However, this type of approach may pose challenges in working with an elderly population. These concerns have not been overlooked by the home care industry. Specific concerns have been expressed about the use of only 19 items from the OASIS dataset and ignoring the significant effect of presence of a caregiver in the formula (Sienkiewicz, 2000). The presence of a caregiver or the level of social support available to an individual could have a significant impact on his or her outcomes. Haydel (2000) noted that data collected from 50 home health agencies indicated that the only reliable predictor of the cost of services was the presence of a paid caregiver in the home. In excluding psychosocial factors such as caregiver support from the case mix model, support for social work services is lacking.

The exclusion of social support from the case mix model implies that social support does not have an impact on patient outcomes. The patient's family and home environment has traditionally been the domain of social workers in health care settings.

Therefore, the need for social work services are diminished when the patient's family and support system are no longer identified as key variables in the patient's health outcomes. Social workers help families to understand the meaning of illness and the impact the patient's illness will have on family dynamics. The social worker also helps families to reconfigure their roles and responsibilities so the family can regain equilibrium following the crisis which often accompanies illness. Previous research has identified the patient's family as a variable influencing the outcome of illness recovery (Kaplan, Smith, Grobstein & Fischman, 1973). Unfortunately, home health agencies are no longer supported in efforts to provide patients with supportive services and resources often needed to enhance family coping and caregiving.

Social Work's Role in Home Health Care

Social work services have been a part of the Medicare home health care benefit since its inception. However, the institution of the PPS in home care threatens the viability of social work remaining in the home health care arena. From the beginning, social work's primary role has been identified as enhancing the social, emotional and physical functioning of the patient at home.

Vincent and Davis (1987) further identified the role of home health social workers to include dealing with parent/child relationships, assessing and intervening in cases of elder abuse, counseling for adjustment to diagnosis and consequences of illness, advocating in legal and housing predicaments, assisting with long-range planning and obtaining community resources and material assistance. By performing these roles it was believed that social work intervention had the capability of strengthening the support system needed to maintain the patient at home, and prevent re-hospitalization and or institutionalization (NASW, 1994). Therefore, social work services have long been

valued for their contribution towards meeting the overall homecare goal of enabling patients to have better quality of life in their own home versus in an institution.

Social work services have also been identified as a means to help contain the rising cost of health care. According to a National Association of Social Work (NASW) policy statement (1994):

Data suggest that early social work assessment and intervention in home care expedite shorter periods of skilled nursing and other medical services. Social work services, which address the social and emotional problems that negatively affect the patient's response to treatment, increase the patient's ability to stay at home, thus preventing re-hospitalization or other costly types of institutionalization. And social work services that strengthen the family and other support systems and provide a link to needed community resources stabilize the caregiver system and further promote recovery in the home. (p. 240).

The conditions of participation outlined in the Medicare Home Health Agency Manual (2003), require that participating home health agencies make social work services available to patients. However, social work services are not considered a qualifying skilled service; therefore they must be provided in conjunction with nursing, physical therapy, speech therapy or occupational therapy. Consequently, Medicare considers social work services reimbursable, but they are not able to stand-alone in the patient's home, meaning a registered nurse, physical therapist, or speech therapist must be providing services before social work services can be provided.

Federal guidelines set forth by the Centers for Medicare and Medicaid Services in the Home Health Agency Manual (2003) outline the services that are covered under the Medicare home health benefit. The guidelines designate social work services as a billable service, provided they are necessary to resolve social or emotional problems that are, or are expected to be, an impediment to the effective treatment of the patient's medical condition or his or her rate of recovery (CMS, 2003a). As long as a qualified medical

social worker (one possessing a masters degree of social work from an accredited program with a current license to practice in the state of occupancy) or a social work assistant under the supervision of a qualified medical social worker provides the services, billable services could include: assessment of the social and emotional factors related to the patient's illness, need for care, response to treatment and adjustment; assessment and assistance with unmet medical needs related to the home situation, finances and availability of community resources; and counseling services required by the patient and/or caregiver, on a short term basis to remove an impediment to the patient's recovery (Centers for Medicare and Medicaid Services, 2003).

The impact of the PPS in home care on social work is significant because it removed the home care agency's ability to bill directly for social work services. It should be noted that agencies must have social work services available to patients that have identified psychosocial needs impacting their care, but the reimbursement amount the agency receives for that patient's care is solely based on the patient's case-mix data (clinical severity, functional status, and previous use of medical services) (Centers for Medicare and Medicaid Services, 2003).

In addition, social workers are considered a supportive member of the interdisciplinary team treating the patient as a whole. A key role social workers play in health care settings is assisting with discharge planning (Kadushin & Kulys, 1993). They work with the nurses and other disciplines to teach patients and caregivers how to maximize their ability to live independently, thereby experiencing a higher quality of life. Cox (1992) found that maximizing the patient and caregiver's abilities to cope with illness and caregiving demands often resulted in independent functioning after discharge from home care services.

Ultimately, social workers seek to improve the lives of home health care recipients through the effective delivery of medical social services. However, it is understandable that social work services may be weighed heavily against an agency's PPS rate for the patient. Where a social work visit was able to bring in additional funds (an agency could bill as much as \$150.00 a visit for social work services) prior to PPS, a social work visit now competes for funds with other disciplines. The prospective payment system capped the average payment an agency could bill for each Medicare recipient, so agencies have felt and responded to the pressure to reduce patient costs in an effort to keep the agencies' overall cost down.

In the current environment, social work services are in a position of having to compete with other skilled home care services for reimbursement from a limited pot of funds. Lee (2002) notes that the need for home health care social workers may increase due to cost constraints under PPS, and the need to discharge patients earlier. Agencies may be in a position to make more profit when they are able to discharge a patient from services earlier than expected based on the patient's case mix data. Unfortunately, a study conducted after the passage of the Balanced Budget Act of 1997 indicated that medical social services visits in home health care decreased by 38 percent, second only to home health aid visits in the reduction of visits (McCall et al., 2003). McCall's study indicates that social work services have become a low priority in terms of services the patient will receive while under the care of a home health care agency.

Finally, social workers represent a small percentage of the home health care provider work force. Whereas nurses and home health aides comprise 45 and 38 % respectively, social workers account for only 2% of the work force (The CMS Health Care Industry Update, 2003). If social workers are to continue to provide a viable service

to elderly, ill, homebound seniors through the Medicare home health program, it is critical that they be able to demonstrate that their services improve patient outcomes.

Purpose of the Study

Research agendas of the National Research Council, the National Institute on Aging, the National Institute of Mental Health Task Force on Social Work Research, and the John A. Hartford Foundation call for research aimed at improving the lives of older persons and their families (Burnette, Morrow-Howell & Chen, 2003). Social workers are in-tune with the social context of illness and use a person-in-environment perspective to address the psychosocial problems that often complicate the care of persons with chronic illness and disability. Social workers have the knowledge and skills that could enable the profession to contribute to the national research agenda by documenting the psychosocial needs of this population and demonstrating social interventions that may improve health outcomes for the elderly population.

This study seeks to add to the body of gerontological research that has been identified as a top priority need by examining the nature of social work services with home health care recipients following passage of the Balanced Budget Act of 1997 and the specific variables which are associated with home health care recipient outcomes. It is an exploratory study that first describes the patient population on various characteristics. It then explores the specific variables that are associated with home health care recipient outcomes.

Two outcome measures of home health care service outcomes are utilized. The first measure uses the final disposition of home care patients (operationalized dichotomously as: remaining in the community or not) to determine outcome status. The second outcome measure utilizes the number of days a patient received home health care

services. Due to the complex environment of homecare, a number of independent variables were included in the analyses for their influence on patient outcomes, including the patient's functional status, caregiver status, race, age, sex and presence of social work services.

The following specific objectives were established to guide the researcher:

Objectives

1. To describe a sample of individuals who received home health care services from one selected home health care agency in the South Central area of Louisiana between January 1, 1999 and January 1, 2005 on the following:
 - a. whether or not they received social work services;
 - b. age at the time they began receiving home health care services;
 - c. gender;
 - d. race/ethnicity;
 - e. marital status at the time they began receiving home health care services;
 - f. primary medical diagnosis that led to receiving the home health care services;
 - g. total number of medical diagnoses; and
 - h. medical prognosis.
2. To compare individuals within the sample who did and did not receive social work services on the characteristics identified in objective 1b through h.
3. To describe individuals in the sample on the following characteristics:
 - a. reason for social work referral;
 - b. number of social work visits;
 - c. psychosocial needs identified by the social worker; and
 - d. total number of psychosocial needs identified by the social worker.
4. To describe individuals in the sample on the following selected personal characteristics:
 - a. the individual's functional status as measured by their ADL and IADL scores at both the time of admit to the home health care services and at the time of discharge from home health care services;
 - b. the individual's primary support or care person;
 - c. the frequency with which the primary care person provides assistance; and

- d. the types of assistance provided by the primary care person.

Research Hypotheses and Questions Using Final Disposition as the Dependent Variable

(1) Is a patient's functional status associated with his final disposition? It is hypothesized that functional status, as measured by activities of daily living (ADL) scales and instrumental activities of daily living (IADL) scales, is associated with a patient's final disposition, where those with higher levels of functioning and independence are able to remain in the community at discharge. It is believed that those who are independent in ADLs and IADLs will require lower levels of care and be able to remain in the community versus an institution based on their abilities to care for themselves with little outside assistance.

(2) Is a patient's level of social support, as provided by his or her primary care person, associated with his final disposition after receiving home health care services? It is hypothesized that an individual with higher levels of social support is more likely to have a final disposition of remaining in the community. A strong social support system is believed to aid an individual in dealing with illness, as well as provide the care needed to maintain him in the community versus an institution.

(3) Is a patient's age associated with his final disposition? It is hypothesized that older patients are less likely to have a final disposition of remaining in the community. The hypothesis is based on the rationale that individuals have higher incidences of disease, disability and decreased independence as they age, therefore they are less likely to be maintained in the community. It is also based on the nursing home admission research which indicates that the majority of nursing home residents are over age 75.

(4) Is a patient's gender associated with his final disposition? It is hypothesized that female patients are less likely to have a final disposition of remaining in the

community. This hypothesis is based on the nursing home admission research which indicates that the majority of nursing home residents are female.

(5) Is a patient's race associated with his final disposition? It is hypothesized that African American patients are more likely to remain in the community than Caucasian patients. The hypothesis is based on nursing home admission research and on the rationale that African Americans are more likely to care for family members at home.

(6) Is social work intervention associated with the final disposition of Medicare home health care recipients? No hypothesis is made for this question because empirical research has yet to demonstrate the impact social work intervention has on home health care outcomes. The study seeks to measure what influence social work intervention has on final disposition, above and beyond all the other independent variables, in other words: What additional explanatory power is provided by the introduction of social work services?

Research Hypotheses and Questions Using Length of Stay in the Community as the Dependent Variable

(1) Is a patient's functional status associated with the length of time he will receive home care services? It is hypothesized that functional status, as measured by activities of daily living (ADL) scales and instrumental activities of daily living (IADL) scales, impacts the length of time a patient will receive home care services, where those with higher levels of functioning and independence receive care for shorter periods of time than those with lower functional status scores. It is believed that patients who are more independent in their self-care skills will not need the home health care services as long as an individual who is dependent.

(2) Is a patient's level of social support associated with the length of time he will receive home care services? It is hypothesized that individuals with higher levels of

social support will receive home health care for shorter periods of time than those with lower levels of social support. It is believed that patients who have a primary caregiver that provides support on a regular basis will require home health care services for a shorter period of time, because the primary caregiver will be able to learn how to meet the patient's medical needs. One of the primary roles of the visiting nurses is to educate the patient's family in how to meet the home health care recipient's medical needs.

(3) Is age associated with the patient's length of time receiving home care services? No hypothesis is stated due to the lack of research regarding age and length of time receiving home care services. There is a significant amount of research using number of visits, but length of care is the primary variable of interest in the present study.

(4) Is gender associated with the patient's length of time receiving home care services? No hypothesis is made, again because of the lack of research on in this area.

(5) Is race associated with the patient's length of time receiving home care services? Again, no hypothesis is made due to the lack of research in this area.

(6) Is social work intervention associated with the length of time home health care recipients receive home care services? It is hypothesized that home health care patients who receive social work intervention will have shorter lengths of stay than those who did not receive social work intervention. Discharge planning is one of the primary roles of health care social workers and research conducted in acute care facilities has found that social worker intervention can shorten the patient's hospital length of stay.

Assumptions/Limitations of the Study

The study is limited by two main factors inherent in the design. First it is an ex-post facto study using the medical records of home health care recipients who have received services some time between January 1, 1999 and January 1, 2005. Therefore, the

researcher is limited to the data included in the medical record. In some cases the data available in the medical record were incomplete, which presented missing data problems during the analysis. The researcher was also challenged in trying to develop an outcome measure for social work intervention without any real socio-emotional measures of well-being.

The second limitation was presented by the challenges of conducting research in the home environment. The primary threats to the study's internal validity are the threats of history and maturation. History of the home health care recipients poses a very large threat to the determination the influence of the study's key variables on home health care outcomes, because the patient typically receives intervention from a number of different disciplines in the course of the home treatment. To receive social work intervention at all, the patient must be receiving visits from either a registered nurse or a physical therapist. Many patients receive services from numerous disciplines, including nurses, home health aides, physical therapists, occupational therapists and speech therapists during an episode of home health intervention. In addition, the home environment itself is apt to change during the course of intervention. For instance, a family member may move in with the patient to aid in his care, or a wheel chair ramp may be added to the home during the course of treatment. These changes may occur with or without the addition of social work intervention and are very difficult to control for.

The threat of maturation may be present in the current study, as the chance of biological changes occurring in the patient that impact his or her home health outcomes. The home health care patient is highly susceptible to disease progression, which might determine his outcome regardless of the home health care interventions he receives in the home.

A final limitation was presented by the lack of available data on the social work interventions. The majority of social work cases contained only an initial psychosocial evaluation visit in the chart. Psychosocial problems were documented, but evidence of specific social work interventions that were employed were hard to locate in the medical record and were not clearly documented.

The present study is an exploratory study; it does not propose that one outcome is better than another because each patient has different circumstances and needs. The analyses are associational and are not intended to demonstrate causation.

CHAPTER 2

REVIEW OF LITERATURE

Chapter two begins with a discussion of the study's theoretical model. The social science literature is then reviewed beginning with research demonstrating the impact of the BBA of 1997 on home health care services. Studies examining social support systems as they relate to health outcomes are then reviewed; these studies also support the potential value of social work interventions in home health care. The basis of social work intervention with caregivers is clarified through the demonstration of social work roles such as teaching problem solving skills, teaching how to deal with role changes and also how to access community resources.

An examination of the literature pertaining to the roles of social workers in the home health care arena follows. There is very little to no research examining the impact of social work services on home health care outcomes, therefore studies examining social work outcomes in acute care settings are relied on for a basis in understanding how medical social work outcomes are measured and understood; this body of literature includes discharge planning studies. Studies of factors related to long-term care arrangements, as well as health care recipient outcomes and factors that affect those outcomes, are also reviewed as they form the basis for the research hypotheses.

Theoretical Model

The study is guided by a basic understanding in systems theory, which recognizes that parts of a system work together to influence the whole. The provision of professional health care services is limited by the restraints of managed care, therefore families and extended social support systems are the resources that enable many elderly to remain in their communities. Systems theory as described by Stein (1974) and Pincus and Minahan

(1973) provides the framework for understanding the interaction between formal and informal caregivers and how they maintain the elderly, ill, individual at home. The role of social support networks in the care of the elderly (Whittaker & Garbarino, 1983) also guided the literature review and provided a framework for studying the influence of social support in maintaining health status. Studies demonstrating the role social support plays in the recovery from illness and maintenance of health highlight the need for social work intervention in the area of social support systems.

The social functioning and physical health needs of elderly individuals is a complex system requiring a multidimensional approach to intervention. The complex needs of the elderly are manifested as they struggle to deal with illness on top of the financial, legal and emotional aspects of aging. In addition, many must deal with an increasing dependency on health care providers and family members (Nathanson & Tirrito, 1998). A social worker's ability to view the individual within his or her environment and to utilize the resources available in that environment is essential to providing care in the current health care system (Berkman & Volland, 1995).

Systems Theory

General systems theory, proposed by von Bertalanffy (1971) described the biological phenomenon of organisms belonging to a system, which is composed of subsystems, all of which belong to super-systems. Social work has long relied on systems theory as a means to understand social systems, including families, communities and political systems. Irma Stein (1974) noted that systems theory has been given attention by social workers since the late 1950's. As social workers continuously interact with people dealing with stress, the basis for many interventions relies on an understanding of an "open system" as being able to adjust and cope with stress and strain as part of

maintaining the system's stability and integrity, while simultaneously allowing system growth and change (Stein, 1974). Systems theory guides one to look at organized wholes and component parts. Each person or patient then must be viewed as both an individual with his own unique characteristics, but also as a part of other systems such as family and community (Engel, 1980). It is the person-in-environment transactions that shape an individual's functioning and require special attention during illness.

Social work's unique ability to work within and understand the complexity of support systems enables the social worker to contribute to the patient's recovery and well-being. The term "steady state" is often used when applying systems theory to the study of persons in their environment. Illness is recognized as a primary contributor to stress in the elderly, and is therefore a significant destabilizing force in their biological and social systems. Families are often thrown into crisis as they struggle to deal with a loved one's illness. The outcome for both the patient and the family is often determined by the capacity of the family to make adaptive changes necessitated by the loved one's illness or disability.

Caroff and Mailick (1985), advocate for the importance of social work's role with the family. They define the family as a critical variable in affecting the course and outcome of illness on an individual. In working with elderly clients receiving home health care services, the social worker's roles involve mediation, advocating and linking patients with all available resources that might aid in returning them to a steady state, or in medical terms, to help them stabilize or improve functioning.

A systems theory perspective is also compatible with specific social work values and ethics that guide the home health care social worker, including: respect for the dignity and worth of all persons and the uniqueness of the individual; fostering self-

determination, or an individual's capacity to change and address his own needs; and a commitment to the client's well-being (NASW Code of Ethics, 1999). Systems theory relies on the creativity of man and his capacity for growth and development (Stein, 1974). In efforts to return the patient's system to a steady state, a social worker must believe in the elderly individual and his caregiver's ability to learn and develop new coping mechanisms to deal with illness.

The Impact of Managed Care Policies on Home Health Care Services

Home health agencies are being forced to provide better quality care with fewer resources. According to Judith Stein, executive director of the Center for Medicare Advocacy, the Balance Budget Act of 1997 did not actually change the Medicare coverage criteria for the home health benefit, but did change the way Medicare reimburses agencies for providing care (Stein, 2000). For this reason, there was initial concern that home health agencies would reduce the number of visits provided to recipients and avoid those who were expected to have higher levels of costly care (Liu, Long & Dowling, 2003).

The harmful effects of the change in the payment structure of home health care services were predicted early on by a number of studies conducted during the interim period prior to PPS taking affect. Congress established an Interim Payment System (IPS) which went into effect October of 1997 as a temporary means to start cutting home health care costs until PPS could be fully implemented in October of 2000. Studies conducted during IPS indicated a relationship between Prospective Payment systems and changes in patterns of care (Kosecoff, Kahn & Rogers, 1990; Diamond, Denton, & Matloff, 1993; Demel, B & Baker, J. R., 2000). Early fears were that the PPS system builds incentives for agencies to avoid higher-cost patients, or to prematurely discharge patients that have

ongoing health care needs. This obviously endangers the most vulnerable home care patients, or those who are very elderly with chronic or high levels of care.

Smith, Maloy, and Hawkins (2000) examined the effects of IPS on access to and quality of care that home health patients received. The information elicited from 28 home health care agencies in nine states indicated that agencies were implementing a number of strategies in response to the change in payment methods. The most widely used among these strategies included screening patients prior to admission for services so as to limit the population of “high-cost” patients and/or reducing the amount of care received by those patients by discharging them earlier. These results support evidence gathered by the Medicare Rights Center, a national non-profit organization which helps seniors with the Medicare system through telephone counseling, indicating that a growing number of people who were eligible for home health care services under Medicare were being denied access (Demel & Baker, 2000).

Thus far, the research conducted on the effects of the BBA on home health care recipients has primarily consisted of studies measuring utilization changes. Overall, studies conducted both during the time when IPS was in place and since implementation of the PPS have shown that utilization rates have declined, both in terms of the use of the benefit by Medicare enrollees and in the number of visits provided to users (Komisar, 2002; Liu, Long & Dowling, 2003; McCall, Korb, Petersons & Moore, 2002). For instance, Komisar (2002) identified a fall in the number of Medicare enrollees using home health services by one fifth from 1997 to 1999 and the number of visits per user fell by two fifths.

Empirical research on Medicare home health care services has tended to rely on process measures rather than functional outcome measures. These results are important

in relation to the needs of the frail elderly population. As many as 3 million elderly persons with acute and chronic illnesses rely on the Medicare home health benefit to receive medical care at home, thus allowing them to remain in their homes versus an institution (Smith, Maloy and Hawkins, 1999).

More specifically, home health service outcomes have been measured with hospital admission rates (Chen, 2000; Kane, Kane, Illston & Eustis, 1994; Shaughnessy, Schlenker, & Hittle, 1994), mortality rates and nursing home admission rates (Kane et al., 1994) and skilled nursing facility and emergency room admission rates (Chen, 2000). The results have been mixed. McCall et al. (2002) indicated that emergency room use and mortality increased, while hospital use decreased in the post-BBA period.

An examination of a home health care patient profile (Health Care Financing Administration, 1999) further highlights the need to examine home health care recipient outcomes and determine which interventions impact those outcomes. The former Health Care Financing Administration, now Centers for Medicare and Medicaid (CMS), has generated a great deal of information on the population that utilizes Medicare home health care services most. Their data describe the largest group of home care users as age 85 or older; likely to have impairment in three or more activities of daily living (ADLs); likely to be poorer than those not receiving home health services; and more likely living alone. The population shown in this profile seems particularly vulnerable to poor outcomes as measured by the OASIS system. This population is also a prime candidate for social work services.

A great deal of research was conducted when the IPS was implemented and shortly thereafter. The primary focus of the research was to identify any reduction in home health care services, but it also identified changes in the characteristics of those

receiving Medicare home health care services. The research indicated that the average number of visits per recipient fell by 54 percent between 1997 and 1999, but there is little to no information on how long the recipients received services in their home. Certain groups also experienced a decline in service use, including: Medicare enrollees age 75 and older, those living in rural areas, people dually enrolled in Medicare and Medicaid, and females in the age groups represented by under 65 and 65 to 75 years old (Komisar, 2002). Fewer studies have been conducted since the PPS has been in place for a number of years in regards to the characteristics of home health care recipients.

Research indicating that the current home health care environment is influenced by cost constraints, a reduction in the use of services, and a heightened focus on outcomes highlights the need for social workers to further examine their role in the provision of home care services. Ideally, current and future research would demonstrate how social work intervention can contribute to the health and well-being of home health care recipients.

Social Support Networks

An aging individual typically experiences a decline in social support related to increased losses and physical dependency that often accompany old age. Whittaker and Garbarino (1983), advocate for network building to promote improved physical and mental health. Social support is also believed to have mediating effects on physical health due to the psychological influence of such support. Past research has identified buffering effects of social support on mental health of the elderly, through the provision of a greater sense of control, less loneliness and worry, and a feeling of usefulness and respect within the community (Stephens, Blau, Oser & Millar, 1978; Antonovsky, 1979).

Individuals who are aging and dealing with medical illnesses require emotional and physical support from both formal and informal support networks. Social workers typically seek to strengthen networks in social support systems by enabling formal and informal caregiving systems (Whittaker et al., 1983). In home care, the need for social work intervention with support systems is enhanced by the fact that individuals must be homebound to receive Medicare certified home health care services. Many homebound, elderly, ill persons with weak support systems become socially isolated. The social worker's role in home care is to facilitate interactions between service recipients and their resource systems to improve functioning.

Pincus and Minahan (1973) detailed these social work roles. Their description of basic social work roles can reveal the important function social workers can perform in aiding to improve the home health care patient's functioning. Primary roles include: improving problem-solving and coping capabilities of patients and caregivers, and developing linkages between persons and required resources. In doing so, a social worker often advocates for a client to help him access resources. In many instances needed resources do not exist and the social worker aids in the formation of new resources.

Additionally, in dealing with illness, many persons find that roles change and individuals need to find new ways to relate to each other. For instance, a husband who becomes ill and in need of home health care services as a result of a stroke, may find that he is no longer able to drive or handle family finances. His elderly spouse may have never performed these duties or roles and will need assistance and support in learning the skills to assume the roles her husband was performing. In a similar way, the spouse of a wife who develops chronic obstructive pulmonary disease, which prevents her from

grocery shopping and preparing meals, will need some assistance learning the new skills needed to ensure that they both receive adequate nutrition. A social worker facilitates the interaction between a person and his caregivers, or helps to build a relationship between persons in need and available resources. These social work interventions are a necessary part of building and strengthening the social support system that is needed to aid an individual dealing with illness and disease. Social workers enable informal and formal caregiving systems in the community to provide the ongoing care that home health agencies are no longer able to provide under PPS.

The roles social workers play in relation to social support systems aid in understanding their influence on health outcomes. Social work intervention in home health care is defined as “professional services necessary to resolve social or emotional problems that are expected to be an impediment to the effective treatment of the patient’s medical condition” (Centers for Medicaid and Medicare Services, 2003). By performing roles identified in the literature as central to the provision of social services in home care (Dyeson, Murphy & Stryker, 1999; Vincent & Davis, 1987), many of which involve linking patients with formal and informal resources, it is believed that social work intervention can strengthen the support systems needed to maintain many patients at home for longer periods of time, and prevent or delay re-hospitalization and or institutionalization (NASW, 1994).

Pincus and Minahan (1973) relate systems theory to direct social work practice by describing the interactions between people and systems in the social environment. “People are dependent on systems for help in obtaining the material, emotional, or spiritual resources and the services and opportunities they need to realize their aspirations and to help them cope with their life tasks” (Pincus & Minahan, 1973, p.3). They define

“life tasks” as the demands made upon an individual by different life situations. Medical social workers recognize coping with illness as a significant life task. An understanding of systems theory enables social workers to recognize the interaction between physical, psychological and social conditions and how those interactions affect health.

Social Work Intervention with Support Systems

The prospective payment system in home care, like many other forms of managed care, focuses on reducing costs by limiting services; thereby shifting greater caregiving responsibilities to families and communities. The roles social workers perform make them uniquely qualified to provide interventions that strengthen patient support systems and maximize patient outcomes. Whittaker et al. (1983) advocated for the social worker’s role in locating or initiating social support networks that can nurture and provide assistance in coping with life stressors. Findings within the social support literature strengthen the importance of social work roles in home care, namely those roles that strengthen the patient’s support system.

Reliance on training based in systems theory enables social workers to focus on the interactions between patients and their environments. As home health care services are reduced, families and informal care giving systems are being relied on to provide care for the elderly and disabled striving to remain in their own homes versus an institution. Estimates show that more than 12 million Americans need help from family, friends and formal service providers due to chronic illnesses and disabilities that interfere with activities of daily living and self care (United States Department of Health and Human Services, 1995).

Social work interventions with support systems are supported in the empirical literature as well. There is an abundance of literature on social support and the buffering

effects it has on mental health, but the emerging literature on support systems and physical health is more relevant to the current study. Social support has been shown to have a positive influence on the psychological, as well as physical functioning and well being of elderly persons. A number of studies have found a direct association between social support and physical health.

Cohen, Teresi, and Holmes (1985) found that social networks had a direct effect on physical health in the reduction of particular physical symptoms of illness for the elderly. They focused on the needs and functioning of an at risk population of single-room occupancy hotel residents for a year to examine the relationship between social networks, stress and physical symptoms (measured with symptom scales for somatic symptoms, heart disorder, edema, sleep disorder, arthritis, stroke, respiratory problems, hypertension, cancer, hearing problems and visual disorders). Their final sample at one-year follow-up consisted of 133 individuals from 21 hotels in midtown Manhattan. Reliable existing scales were used to measure physical and mental health social functioning, physical health symptoms, stress, social interactions and social networks. The use of regression analysis and a longitudinal design enabled them to control for physical symptoms of illness at times one and two of the study, and allowed them to demonstrate that social networks exert a direct effect on physical health.

Shen, McCreary and Myers (2004) also studied the relationship between psychosocial factors and physical health. Their sample consisted of 142 patients receiving cardiac rehabilitation. After controlling for age, illness severity, baseline physical functioning and other psychosocial variables, the patient's level of optimism and social support significantly predicted post-treatment physical functioning, where higher levels of optimism and social support were associated with better functioning. In addition,

social support was found to contribute to health indirectly by mediating against depressive symptoms.

Researchers have also investigated the ability of social support in slowing down physical and functional deterioration. Choi and Wodarski (1996) examined the relationship between caregiver support from children and relatives and physical and functional status at two different time points. Much like Cohen et al. (1985) they were able to make inferences from their results by using a longitudinal design. The data were drawn from the National Health Interview Survey: Longitudinal Study on Aging, 70 Years and Over, 1984-1990. Their sample selection criteria allowed them to control for caregiver status, ADL and or IADL status, and race. A structure model using LISREL 7 was used to analyze the data on 695 subjects who were interviewed in 1988 and 1990.

Choi et al. (1996) used a number of measures for physical and functional status, including scales measuring independence on ADLs and IADLs. Caregiver support was measured by the frequency of having weekly face-to-face contact with children and the number of task areas for which unpaid assistance was provided from relatives. Their results indicated that a higher level of social support resulted in better health outcomes, and the higher amount of unpaid help an individual had with ADLs and IADLs at time 1 tended to deter functional deterioration at time two. In general, Choi et al.'s (1996) evidence demonstrating how emotional and instrumental aid from spouses, children and other relatives can contribute to the prevention of further physical and functional deterioration of elderly reinforces the support system as an area for social work intervention.

The building evidence for social support intervention is relevant to home health care intervention, in which the intervention is intended to enhance or at least maintain

health and functioning (Kramer et al., 1990). Concurrent with this goal, social support systems that provide tangible goods, assistance with social services, and instrumental help with activities of daily living, have been noted to deter further deterioration of health (Ell, 1984; Mor-Barack, Miller, & Syme, 1991).

Conceptually, social work intervention would have an impact on the patient's final disposition due to the roles social workers play in strengthening the patient's formal and informal support system. It is believed that those with a strong social support system are enabled to remain in their own home versus an institution. In addition, social work intervention within social support systems could strengthen the support system and enable it to aid the patient in remaining in the community versus an institution for longer periods of time.

Research on Social Work in Home Health Care

There is a dearth of social work literature in the field of home health care service provision. There are a number of factors which pose challenges to studying the impact of social work intervention on home health outcomes. In health care research, the design options are limited and there are numerous threats to internal validity posed by the multiple factors that are involved in medical care, as well as varying patient characteristics and environmental influences that are difficult to control. These factors are compounded by the fact that care is provided in the home rather than a controlled environment. However, a review of early social work studies conducted in home health care identified the nature of social work intervention with home health care recipients and laid the groundwork for the current study.

Early studies focused on the roles or functions of social workers in home health care (Levande, Bowden and Mollema, 1987; Cox, 1992; Dyeson, Murphy and Stryker,

1999; Goode, 2000) and ethical dilemmas social workers face in the provision of home health services (Foster and McLellan, 1997).

Descriptive studies conducted in the 80's provided useful information about the patient population and social work functions in home health prior to passage of the BBA. Consistent with current research on home health patient populations, Levande, Bowden, and Mollema (1987) found that the majority of patients were 75 and over, female, Caucasian and had multiple health problems. In addition, they found family members to be the predominant providers of in-home care, highlighting the importance of informal helping networks in providing long-term care to the physically ill older population. Helping the patient to identify and effectively use resources in the environment was recognized as the primary social work intervention.

Subsequent studies explored health care professionals' beliefs about social work services and utilization of social work services in home care (Goode, 2000), and the role of social workers in home health care with special attention to discharge planning (Dyeson, Murphy and Stryker, 1999). Dyeson, Murphy and Stryker's (1999) study expanded the description of the social worker's role in home health, and emphasized the need to involve the social worker as soon as possible to facilitate discharge planning. Lee (2002) also examined the need for early social work intervention, which has intensified with the inception of the prospective payment system. In general, the literature highlights how social workers could aid in the home health discharge planning process through performing the primary roles of community resource planning, or linkage with resources in the community, and counseling services for long range planning, which includes assistance with nursing home placement.

Social Work Intervention and Health Outcomes

To date there is little empirical research on social work intervention and outcomes in the provision of health care services. Auslander's (2000) assessment of outcome research in health-related social work journal articles and conference abstracts identified only one in eight that dealt with the effectiveness of social work intervention in any form. Studies in the specific area of home health care are even fewer in number. However, studies demonstrating the impact of health care social work services in acute care settings are relevant to the proposed study, as acute care settings went through a similar process with the implementation of DRGs. Numerous acute care setting studies were initiated when hospital social workers were faced with the same need to demonstrate the effects of their interventions related to the institution of Diagnostic Related Groups into the Medicare payment to hospitals in 1982 (Cornelius, 1994). The current concerns of home health care social workers parallel the concerns of hospital social workers in the 80's. Hospital social workers could not afford to ignore the need to prove that their roles in discharge planning and psychosocial counseling were cost-effective, and beneficial to hospitals.

As managed care and prospective payment systems moved into acute care, discharge planning became an increasingly important role for social workers (Potthoff, Kane & Franco, 1997). Many social work outcome studies conducted in acute care settings use discharge planning interventions as an independent variable. Discharge planning research is also relevant to the present study, because it is a prominent role of home health care social workers (Dyeson et al., 1999).

Empirical studies of the efficiency of discharge planning have used rates of nursing home admissions (Rudberg, Sayer, & Zhang, 1996), hospital readmission rates (Auerbach, Rock, Goldstein, Kaminsky & Laporte, 2000; Keehn, Roglitz, & Bowden, 1994; Lockey, Dunkle, & Kart, 1994), and hospital lengths of stay (Auerbach et al., 2000; Berkman, Bedell, Parker, McCarthy & Rosenbaum, 1988; Evans, Hendricks, Lawrence-Umlauf & Bishop, 1989; Holden, 1989) as outcome measures. The majority of results from these studies show that early social work intervention has been linked to reduced lengths of stay, a decline in recidivism, and an increase in nursing home placements.

Concurrent with the primary roles of home health social workers, assessments and discharge planning have been identified as the most frequently utilized interventions for hospital social workers (Auerbach et al., 2000). In addition, the most frequent discharge problems were inability to perform activities of daily living and patient/family adjustment to illness. By tracking such social work interventions Auerbach and al. (2000) demonstrated both decreased lengths of stay and aversion of unnecessary hospitalizations.

Several studies in acute care settings have highlighted the positive outcomes of early social work intervention (Holden, 1989; Keehn et al., 1994). Holden's (1989) quasi-experimental study assigned patient's to an early social work intervention group or routine intervention control group. Using DRG guidelines to measure the patient's length of stay, it was discovered that the longer the social work intervention was delayed, the more likely the hospital stay would be excessively long. In addition, it was found that as the amount of psychosocial and concrete services increased, an excessive hospital stay was less likely.

Similarly, social work intervention in hospital emergency rooms, where the social worker has the ability to intervene very early on, has been shown to reduce non-acute admissions and provide continuity of care for patients at high social risk (Boyack & Bucknum, 1991). In addition, emergency room intervention has been found to reduce recidivism, improve quality care and contain cost for those presenting with non-medical complaints (Keehn et al., 1994). Keehn et al. (1994) demonstrated that emergency room social workers with good knowledge of community resources were able to reduce recidivism rates in the emergency room, thereby demonstrating the cost benefit of employing social workers in the emergency room.

Social Workers as Discharge Planners

Related to cost constraints and a desire to demonstrate the value of social work services in medical settings, a number of health care social work studies have focused on the role social workers play in the discharge planning process. It is important to note that numerous studies have recognized the complexity of discharge planning (Blazyk & Canavan, 1986; Proctor, Morrow-Howell & Kaplan, 1996) and not all studies reveal positive outcomes.

In measuring the effectiveness of discharge planning, a number of studies have used the adequacy of care patients receive after being discharged as an outcome measure (Mor, Allen, Siegel & Houts, 1991; Morrow-Howell, Proctor & Berg-Weger, 1993; Morrow-Howell, Proctor & Dore, 1998), as well as the adequacy of the care plan (Morrow-Howell, Proctor & Mui, 1991). Some have approached outcomes by examining unmet needs once discharged (Mor, Allen, Siegel & Houts, 1991; Mammon, Steinwachs, Fahey, Bone, Oktay & Klein, 1992; Proctor, Morrow-Howell & Kaplan, 1996), as well as the extent to which home care plans were carried out, i.e., if the services planned by the

discharge planner were ever delivered (Simon, Showers, Blumfield Holden & Wu, 1995).

Social work intervention is not always associated with positive outcomes. For instance, in a follow-up study of elderly patients diagnosed with congestive heart failure, Proctor et al. (1996) found that 40% of the participants had one or more components of their discharge plan not implemented once they were home. Similarly, Oktay, Steinwachs, Mamon, Bone, & Fahey (1992) measured the effectiveness of discharge planning by measuring unmet needs post hospitalization. Whereas they found a significant reduction in unmet patient needs in the areas of medications, nursing care and physical therapy, they found that those who had received social work services were no less likely to have unmet needs in the areas of activity of daily living and self sufficiency than those patients who did not receive social work intervention.

Unfortunately, the findings from these studies show that many patients who go home from the hospital do not receive the support they need at home and have unmet needs. In general, poorer outcomes are associated with more chronic conditions and with weaker formal and informal support systems at home and in communities. Caro and Blank (1988) measured the intensity of services home care patients received from formal and informal providers in an examination of the impact home care has on the elderly patient's quality of life. They developed a quality of circumstances scale to indicate favorable home care situations. They found that quality of circumstances was related to the patient's functional ability, where increased disability was related to decreased quality of circumstances, and that the intensity of help from formal and informal providers had a positive association with quality of circumstances for the moderately impaired elderly. A direct association was not possible, but it was suggested that adequate care is expected to correlate with quality of life, or the well-being of recipients of care.

Abramson (1990) noted the significant change managed care has had on how discharge planning is organized and practiced. In reviewing the literature on healthcare social work efficiency in discharge planning, it is important to understand that discharge planning is generally based on three premises: first, that it is cost-effective for the health care system, secondly, that it promotes continuity of care for the patients, and thirdly, that it positively affects the quality of life for patients and families (Jackson, 1994). Empirical research in the field has revealed that discharge planning interventions are often found to be effective from the medical facility's standpoint, because they often help to reduce medical cost by reducing length of stays and readmissions. However, in empirical studies, discharge-planning activities have rarely been linked with outcomes such as ability to promote continuity of care, or ability to improve quality of life, which are of primary concern to social workers.

Kayser, Hansen and Groves (1995) have also noted the difficulty health care social workers face in proving the "value added" component they provide. They contend that in attempts to prove the value of their activities by focusing on cost effectiveness and efficiency, social work researchers have neglected to provide true measures of effectiveness. Using a four point Likert-type scale consisting of seven items ranging from psychosocial adjustment to illness to use of community services, they had social workers rate the outcomes of their interventions on a non-random sample of 60 patients. The study's four independent variables included: a sum of the number of problems per patient; a sum of the number of risk factors or factors that complicate the presenting psychosocial problem; a sum of the specific social work interventions that were provided, and a sum of obstacles to the delivery of social work services. The variables were studied for their contribution to the outcomes of the social work interventions. Regression

analysis determined that the study's only variable to account for a significant amount of the explained variance was number of obstacles to social work treatment. The outcomes that were most predictive of social work outcomes were psychosocial factors, such as lack of social support and family noncompliance. The study concluded that certain obstacles are not easily overcome and do affect social work outcomes (Kayser et al., 1995).

More recently, Reese and Raymer (2004) contributed to the advancement of measuring health care social work outcomes by examining the effects of social work intervention on hospice outcomes. As are other health care providers, hospice service providers are being forced to contain cost while providing quality care to their patients. Hospice social workers are also finding that their services are being utilized less, thus creating a greater need to demonstrate the influence social workers have on health outcomes. While the Reese study included a cost/benefit measure, it also advanced the progress of outcome studies by utilizing outcomes more central to quality of care.

Reese et al. (2004) specifically examined the relationship between social work involvement, hospice processes and hospice outcomes. Hospice outcomes were measured with number of medical care cost, such as hospitalization cost; hospice care costs, such as number of visits by team members; and client satisfaction. The study selected a stratified random sample of 350 hospices to survey. Sixty-six hospices comprised the final sample from which data were collected. Data were collected in three ways: the most experienced social worker answered a questionnaire, the hospice director completed a questionnaire, and five recently deceased patients were chosen from each of the 66 hospices for chart review. Data were collected by mail and telephone on social work involvement, hospice processes, hospice outcomes and team functioning.

Social work involvement was associated with a number of hospice outcomes. Social work intervention was associated with lower hospice costs and patient outcomes that included increased client satisfaction. A positive relationship was also found between social work involvement and hospice processes, most importantly, full involvement of social workers on the interdisciplinary team contributing to team functioning and the ability to deliver effective end-of-life care (Reese et al., 2004).

In general, studies measuring the outcomes of social work intervention have been slow to advance in methodology and complexity, because social work intervention is a difficult dimension to measure. Medicare's home health care program focuses on restoring a patient's functional status so he or she may be maintained in the community. However, as noted by Lawlor and Raube (1995) homecare illustrates the "complexities of modeling outcomes in community settings, where the interventions are murky, and where social factors will critically shape both the effectiveness of the service and the interpretation of its effectiveness" (pp. 384).

Predictors of Long-term Care

In many instances, admission to a nursing home or a similar type move within the community is unavoidable. A number of studies have examined variables predicting nursing home admission. There are numerous variables that influence whether an individual is placed in a nursing home versus remaining in the community. One of the strongest predictors of nursing home admission is the patient's level of functional status, measured with Activities of Daily Living (ADL), and/or Instrumental Activities of Daily Living Scales (IADL), (Green & Ondrich, 1990; Hanley, Aleexih, Wiener & Kennell, 1990; Wolinsky, Callahan, Fitzgerald, & Johnson, 1992; Choi, 1999, Kersting, 2001).

Overwhelmingly, those with lower levels of functional status, including basic self-care skills such as dressing, bathing and toileting are predictive of nursing home admission.

Increasing age is also predictive of nursing home placement, and numerous studies have found a relationship between race and nursing home admission, (Choi, 1999; Belgrave & Bradsher, 1994; Belgrave, Wykle & Choi, 1993) where older African Americans are less likely to be admitted to a nursing home even when they have higher levels of disability.

Availability of social support is another strong predictor of nursing home admission (Kersting, 2001; Shapiro & Tate, 1985), which is measured by the patient's living status and if he or she lives with a spouse or family member versus living alone, and if the patient has regular contact with relatives. Research indicates that those with lower levels of social support are at risk for nursing home admission.

Realistically, it is difficult to determine exactly what variables contribute to the type of long-term care an elderly individual receives. It is not uncommon for an elderly individual with decreasing independence to move through various care arrangements and settings, including: care in the community in their own home or a relative's home, care in a nursing home, hospital or rehabilitation facility. Age, gender and race have also been identified as predisposing factors related to movements among care arrangements (Jackson, Longino, Zimmerman, & Bradsher, 1991)

Choi (1999) examined the numerous factors associated with changing care arrangements for the elderly. By interviewing the adult children of 1028 elders who had become dependent, they found that over 60% ($n = 631$) of the elderly parents experienced at least one form of institutionalization, that being a hospital or nursing home. Out of those who went to a nursing home or the hospital, 36.8% died in the institution; 14.9 %

remained in the institution for a significant period of time and 47.5% returned to the community for care. Of those who returned to the community, the majority had to change their care arrangements where they moved in with a family member or had someone to move in with them. Logistic regression analysis was used to determine the factors associated with changes in care arrangements. Independent variables utilized in the study included: health problems, ADL and IADL status, duration of health problems, the number of caregivers and amount of help provided, and measures of socioeconomic status. Choi's findings coincided with previous findings in that the variables associated with nursing home placement were race, number of ADLs/IADLs with difficulty, stroke and thinking or memory problems.

Miller, Longino, Anderson, James and Worley (1999) also investigated the relationship between declining functional health and community-based moves. The use of longitudinal data and advanced statistical methods (MULTILOG procedures) enabled the researchers to construct a model, which illustrated a combination of factors that contributed to transitions in care arrangements. Among the factors studied, Miller et al. also found lower levels of self-care to be predictive of moves within the community and to long-term-care institutions. Additionally, they were able to relate the presence of assistance (i.e. social support) to the occurrence of community-based moves. One of their main conclusions was that the older adults in their sample who had cognitive limitations and a lack of assistance in the home were more likely to make moves to different care arrangements, including moves to long-term-care institutions.

Based on the nursing home literature and studies of moves within the community, patient outcomes can somewhat be predicted based on specific patient characteristics, to include their level of ADL and IADL independence, and their level of social support.

Other variables such as cognitive and emotional status have also been shown to impact outcomes but are not reliable measures in the data set used for the present study.

In summary, social work scholars have long warned that social work services will eventually be eliminated if the profession neglects to prove the impact of their interventions on client outcomes (Kane, 1982). In health care, social workers have experienced downsizing in all areas. In particular, social work service provisions in the area of home health care services are nearing total elimination. As noted earlier, social work services account for only 2% of the total services provided in home care. In part, this effect can be attributed to managed care and cost constraints throughout the health care industry; however, social workers must realize that their psychosocial interventions will be valued only when the effects of those interventions on patient outcomes can be demonstrated.

In terms of outcomes of medical care, the health care field is most concerned with: recovery, restoration of function, and survival. However, social workers are concerned with the psychosocial impact of illness and how to improve the patient's quality of life, which is often determined by his or her final disposition at time of discharge and their ability to remain in their own home versus an institution. The present study is an ex-post facto study; therefore the scope of the study is limited by the data available in the patient's medical record. The medical records contain demographic data plus data on each patient's functional status, caregiver or social support status, final disposition at time of discharge from the agency, and length of stay or time receiving home care.

A final disposition of discharge back into the community would seem the most positive, as it is the goal of Medicare's home care program; however, it is at times not the

best disposition for the patient and his or her family. Therefore, it is not always the goal of social work intervention. Social work intervention in home care often involves counseling for long range planning, in which the patient and family receive assistance with alternative care plans, with admission to a nursing home, hospice or rehabilitation facility being appropriate in that instance. Ultimately, social workers seek to improve the overall quality of life of their patients and caregivers.

CHAPTER 3

METHODOLOGY

Chapter 3 presents the methods and procedures of the study. First the sample and sampling procedures will be described followed by the research design and methods of data collection, followed by the description of measures used for the dependent and independent variables. Finally, the methods of data analysis will be described.

Sample

The sample was a convenience sample drawn from a patient list generated by a privately owned home health agency in Opelousas, Louisiana, of patients who received home health care services between January 1, 1999 and January 1, 2005. The patients receiving home health care services are generally receiving services following an acute hospital care stay to which they have been discharged home. A random sample was not possible with this population, due in part to the 1996 Health Insurance Portability and Privacy Act (HIPPA) laws which were designed to protect the confidentiality of medical records (Health Care Financing Organization News, 2004). The confidentiality laws require written consent from the patient before a medical record can be viewed by anyone working outside an agency or service provider. The Louisiana State University Institutional Review Board (IRB) also required written consent from the study participants (See Appendix A for a copy of the IRB approval form which includes the patient consent form). The challenges posed by obtaining written consent from the elderly home health population restricted the sample size and also constrained the possibility of drawing a random sample which would be adequate in size to run the intended analyses.

Originally, a central intent of the study was to examine the characteristics of those who received social work services to the characteristics of those who did not. The sample, therefore, was pulled on the basis of these two strata. One stratum was comprised of patients who received social work services from January 1, 1999 through January 1, 2005. There were a total of 218 patients in the first stratum, meaning only 218 patients from the total patient population within the agency received social work services during the study's time frame. The second stratum consisted of patients who received home health services, but did not have a social work visit between January 1, 1999 and January 1, 2005. There were a total of 8,000 patients in the second stratum. The final sample was drawn from home health care recipients in these two strata that met the following criteria: Medicare was a primary payor for services; they were admitted to homecare services (with completed admit forms in the chart) and were discharged from home care services (with completed discharge information in the chart); and they returned a signed consent form or were deceased at the time of data collection.

Patients listed on the home health agency generated census were contacted by phone (see the phone script in appendix A). Depending on the patient's status and/or willingness to be included in the study, a consent form with a return stamped envelope was mailed. This method was conducted with all patients listed as having received social work services during the study time period until all accessible patients were included in the data set. The same method was then employed with the group of patients who did not receive social work services, until a group comparable in size to the social work group was obtained. The total sample included 150 individuals who received home health care services. The stratum of patients who did not receive social work services included 76

individuals and the stratum of those who did receive social work services included 74 individuals.

Research Design and Measurement

The study is an ex-post facto, exploratory study. The unit of analysis was the home health care recipient as represented by the data contained in the patient's medical record. The data were compiled from the following sources:

- 1.) Agency patient intake forms containing demographic data.
- 2.) Individual patient OASIS forms, which are completed on every patient at admission, most often by a registered nurse during 60 day intervals and at discharge from the agency (see Appendix B for a copy of the Outcome and Assessment Information Set - OASIS-B1). OASIS is a compilation of measures for patient functional status, clinical status and health service utilization. It includes indicators of health condition, mental and emotional state, functional status and sociodemographic characteristics such as levels of caregiver support. Measures of functional status are based on ability to perform activities of daily living (ADLs) and instrumental activities of daily living (IADLs) (Center for Health Policy Research, 2000).
- 3.) Social work records, including: the reason for the social work referral, the number of social work visits, the psychosocial needs identified by the social worker.

Dependent Variables

Final Disposition

The patient's final disposition at time of discharge from the agency and the number of days the patient received home care services are the criterion or dependent variables for the major research questions. There are five possible outcomes, represented by the final disposition of the home health care patient, including: 1) remained in the

community; 2) admitted to a hospital or a rehabilitation facility; 3) admitted to a nursing home; 4) admitted to hospice services; or 5) the patient died. Each possible outcome was originally made into a dichotomous response variable.

In order to code the final placement dispositions, the researcher took the following steps towards interpreting the data in the patient's medical record:

(1) The chart was searched for OASIS discharge forms, which are an exact replica of the OASIS admit forms, but contain data on the patient's status at time of discharge. Depending on whether the patient had been discharged back into the community or transferred to an inpatient facility, fully completed OASIS discharge data would be available for those discharged to the community, or a shortened version noting the disposition only would be in the chart for those discharged to the hospital.

(2) Patients who remained in the community had completed OASIS data on the status of the patient at time of discharge. The discharge disposition was then coded from the final OASIS indicators, to include item number M0855, "To which inpatient facility has the patient been admitted?" 1-hospital; 2-rehabilitation facility; 3-Nursing Home; 4-Hospice; or NA-no inpatient facility.

(3) If "no inpatient facility" was checked, the patient was coded as having remained in the community.

(4) The researcher then proceeded to collect additional discharge status information from OASIS item number M0870, "Discharge Disposition: Where is the patient after discharge from your agency?" 1-patient remained in the community; 2-patient transferred to a non-institutional hospice; 3-unknown

because patient moved to a geographic location not served by the agency; UK-
other unknown.

(5) However, if the patient was not discharged back into the community, a shortened discharge disposition OASIS form containing brief information on the discharge status would be available in the front of the chart. The brief discharge status form is used primarily for hospital admission and it notes the medical reason for transferring the patient to the hospital. The medical reason for hospital admission was entered as qualitative data.

(6) A final step was taken to investigate the discharge disposition for the patients admitted to the hospital by reading their discharge summary dictated by the patient's physician. If the patient passed away shortly after entering the hospital, it was often noted on the discharge summary and that information was also entered into the data set. Unfortunately, the researcher has no way of knowing the final status of the patient who was admitted to the hospital unless it was noted on the discharge summary. Some patients remain in the hospital for long periods of time, while others go home or to nursing homes without ever having contact with the home health agency again. The data included in this study represent a snapshot in time of the patient's life.

The researcher then composed an additional variable in the data set that considered all of the above variables related to final disposition and coded each patient's final disposition into the dichotomous variable: 1) Discharged to the community or 2) not discharged to the community. A small percentage of the sample died during the time period or near after they were receiving care. These patients were coded according to their disposition at time of death, for instance, if it was noted in the medical record that

the patient died in the hospital shortly after his admission to the emergency room, his final disposition was coded as "transferred to short term care".

Length of Time Receiving Care

The patient's number of days living in the community and receiving home care services was coded as a continuous variable, (measured from day, month and year admitted to services to day, month and year discharged from services).

Independent Variables

Functional status measured by activities of daily living (ADL) scales and instrumental activities of daily living (IADL) scales are treated as predictor variables in the logistic regression model for the major research questions. The OASIS forms contain data in the form of ordinal scales ranging from 0 to 5, with a value of 0 indicating no need for assistance to a 5 indicating a need for total assistance. ADL scales measure the patient's level of independence on grooming (e.g., personal hygiene), ability to dress upper body, ability to dress lower body, ability to wash entire body, toileting, transferring (e.g. moving from bed to chair), and ambulation/locomotion. IADL scales measure the patient's level of independence on feeding or eating, planning and preparation of light meals, transportation, laundry, housekeeping, shopping, ability to use a telephone, management of oral medications, management of inhalant medications, and management of injectable medications.

The OASIS dataset was developed and tested by The Center for Health Services and Policy Research at the University of Colorado with funding from the Centers for Medicare and Medicaid Services and the Robert Wood Johnson Foundation. It was originally developed in 1994 and was used by 162 home health agencies in various demonstration projects around the country. The items in OASIS were developed by

clinicians and are considered valid, reliable and risk-adjusted (Kang, 1999). Several scientific processes were incorporated into the development of the OASIS measures, including a test of inter-rater reliability, intra-rater reliability, and criterion validity (Madigan, 2002). It is believed to be a valid and reliable measure of the functional status of homebound elderly individuals.

Fifteen measures on the OASIS instrument were used to compute the patients' functional status (8 measures of ADL status and 7 measures of IADL status). The total number of ADL and IADL dependencies was summed to produce a composite functional score (Spector & Fleischmann, 1998). Because the measures have varying scales from 0 to 5, each measure of functional status was rescored on a scale of 0-100. Each of the 15 items was then recoded to reverse the direction of the scoring so that 0 represented complete dependence and 100 represented complete independence (the reversal coding shows the patient's level of independence rather than dependence) (Keepnews, Capitman & Rosati, 2004). The composite scores were treated as continuous variables in the regression models.

Caregiver support is the second predictor variable. The OASIS caregiver data utilized in the study included: 1) identification of the primary caregiver taking lead responsibility for providing the most frequent assistance (no one person, spouse or significant other, daughter or son, other family member, friend or neighbor or community or church member, or paid help), 2) the frequency with which the primary care person provides assistance (several times during the day and night, several times during the day, once daily, three or more times per week, one or two times per week, less often than weekly), and 3) the types of assistance provided by the primary care person (ADL assistance, IADL assistance, environmental support, psychosocial support, help with

participation in application of the medical care plan, financial agent or power of attorney). These measures were treated with descriptive statistics. The frequency with which the caregiver provides assistance and a total of the types of assistance provided were entered into the logistic regression model.

Three additional variables were expected to be covariates based on the literature review. Age, race and gender have been shown to influence disposition and length of stay in the chronically ill elderly population; therefore they were also entered into the regression analyses. Race was transformed into a dichotomous variable through dummy coding: African American was coded as 1 for yes and 0 for no; Caucasian was coded 1 for yes and 0 for no etc. Age is expressed in years based on the date of birth information contained in the medical record. Sex was coded dichotomously as 1 for male and 2 for female. The demographic variables were included in both regression analyses.

The final predictor variable was social work intervention; it was treated as a dichotomous variable, coded as 0 no social work intervention and 1 had a social work intervention. Social work intervention is operationalized in terms of the roles or functions home health care social workers perform. A primary role social workers perform is assistance with discharge planning (Dyeson, Murphy & Stryker, 1999; Lee, 2002). Discharge planning is a multidimensional role involving numerous tasks (Kadushin & Kulys, 1993). It begins with a clinical assessment of the patients and caregiver's needs and resources. The social worker then engages the patient and family in problem solving to develop and coordinate a discharge plan. Other members of the health care team are consulted in the coordination of the discharge plan. Documentation of coordination activities and the plan is necessary, followed by counseling with patients and families to help them adjust to and understand the impact of the illness on the patient and family

system. Additionally, the system is linked with needed resources (Kadushin & Kulys, 1993).

Identifying needs and available resources within the community and the informal support network of the patient has been identified as a primary task of the home health care social worker (Levande, Bowden & Mollema, 1987). Patients must also be assisted in the effective use of available resources, including: assistance with finances; applying for benefits to which they may be entitled; interpreting medical information and the implementation of the home care plan; obtaining legal counsel for issues such as guardianship; and establishing or strengthening linkages between the patients and the formal and informal helping network. In addition, patients and families often need assistance formulating long-term care plans, particularly when the patient needs relocation to a nursing home (Levande, Bowden & Mollema, 1987).

The Medicare guidelines for social work intervention in home health care requiring masters prepared social workers or social work assistants supervised by masters prepared social workers maintains the treatment integrity of the social work intervention. The home health agency in which the data for the study was collected only employs Masters prepared social workers with a state license to practice. The social workers providing services during the time frame of the study were contract social workers.

The reason for the social work referral, the number of social work visits, the psychosocial needs identified by the social worker and the total number of psychosocial needs identified by the social worker were used in descriptive and comparative analyses. The number of social work visits was not used in the regression analyses; because it had little variability (more than 50% of the sample received only one visit). Other independent variables of interest included the following: marital status, primary medical

diagnoses that led to receiving home care services, total number of medical diagnoses, medical prognosis, and patient's primary support or care person.

Data Analysis

Both descriptive and inferential statistics were used. The descriptive statistics were used to describe the sample population in accordance with the objectives of the study. Measures of central tendency, frequency distributions and percentages were utilized.

Logistic regression was used to describe the relationship between the final disposition dependent variables, which were converted to dichotomous response variables, and the predictor variables. Logistic regression was used to measure the dependent variables that met the statistical assumptions of at least 20 cases in each category (Hair, 1998). For instance, the dependent variable of discharge disposition originally had five discharge categories; however, many of the categories had less than 20 cases. The researcher then collapsed all cases that were not a discharge to the patient's home (the community) into the final disposition of "not discharged to the community".

The goal of logistic regression is to predict the category of outcomes for individual cases using the most parsimonious model. The greatest Wald coefficient was used to guide the step wise entry of the independent variables into the regression model. (Hair, 1998). The model was tested for overall fit after the addition of each independent variable. The threshold for significance was set at .05.

Multiple regression was used to test the relationship between the length of stay dependent variable and the independent variables.

CHAPTER 4

FINDINGS

The findings of the study are presented in this chapter. The results are organized by the study's objectives and research hypotheses.

Objective One

The first objective of the study was to describe individuals in the sample on selected demographic characteristics. The characteristics included the following: whether or not the individual received social work services, age at the time they began receiving home health care services, gender, race, marital status, primary medical diagnosis that led to receiving home health care services, total number of medical diagnoses and medical prognosis.

The demographic data, including the variables gender, race, marital status, primary medical diagnosis and medical prognosis were measured on categorical scales of measurement; therefore results for these variables are summarized using frequencies and percentages. Receipt of social work services was measured dichotomously as received social work services or did not receive social work services. Age at start of care was measured on a continuous scale of measurement and is summarized using means and standard deviations. The total number of medical diagnoses was measured on an interval scale of measurement and is summarized using means and standard deviations.

Whether or Not the Individual Received Social Work Services

The first variable on which study participants were described was whether or not they received Social Work services. The sample from which useable data were acquired included a total of 150 individuals who received home health care services. These individuals included in the study were fairly evenly divided on the variable whether or

not they received social work services, with slightly more than half ($n = 76$, 50.7%) not receiving social work services and 49.3% ($n = 74$) receiving social work services.

Age at the Time Home Health Services Began

Age was recorded in the patient's medical record by the month, day and year of birth. Age was then calculated from the date of birth to the first day each individual began receiving home health care services. Recipient's ages ranged from 16 to 97. The mean age was 75 ($SD = 13.10$). The median age was 77.

Gender

Of the 150 recipients included in the sample, there were more females than males. There were 86 females, comprising 57.3% of the sample and 64 males, comprising 42.7% of the sample.

Race/Ethnicity

Race/ethnicity was recorded in the patient's medical record primarily by the registered nurse performing the admission to home health services visit. Race was coded as American Indian or Alaska Native, Asian, Black or African-American, Hispanic or Latino, Native Hawaiian or Pacific Islander, White, or Unknown. The majority of the sample, 53.3% ($n = 80$) was coded as White. The second largest portion of the sample, 46.0% ($n = 69$), was composed of Black or African-Americans. The remainder of the sample was composed of American Indian or Alaska Native .7% ($n = 1$). There were no Hispanic/Latino individuals or Asian individuals represented in the sample.

Marital Status

Marital status was recorded in the recipient's medical record as married, widowed, single or divorced. Again, the registered nurse admitting the patient to home health care services recorded the marital status of recipients. The majority of the sample, 53.1% ($n =$

78) was widowed and 30.6% (n = 45) were married. A smaller portion of the sample was single, 9.5% (n = 14) and only 6.8% (n = 10) were divorced (see Table 1).

Table 1.

Marital Status of Home Health Care Recipients at the Time Home Health Services Began

Marital Status	Frequency	Percent
Widowed	78	53.1
Married	45	30.6
Single	14	9.5
Divorced	10	6.8
Total	147 ^a	100.0

^a Marital status data were unavailable for three study participants.

Primary Medical Diagnosis Leading to Receiving Home Health Care Services

The majority of the data for this study was collected from the Outcome and Assessment Information Set (OASIS) forms, which direct the admission nurse to list each medical diagnosis for which the patient is receiving home health care. First the primary diagnosis is listed, followed by other diagnoses for which the patient is to be treated. There were over 140 different primary diagnoses listed in the data source (see Appendix C for a complete listing of primary diagnoses included in the data set), therefore the researcher recoded each of the primary diagnoses to fit into one of the 19 International Classification of Disease (ICD) Code Categories or disease classifications. The World Health Organization (WHO), the United Nations specialized agency for health, developed the ICD codes as a system for international classification and categorization of diseases and other health problems. To recode the diseases reported in the home health care medical records, the researcher first accessed the World Health Organization Website at:

<http://www3.who.int/icd/vol11htm2003/navi.htm>, then linked to the online version of the *International Statistical Classification of Diseases and Related Health Problems*. The website search engine will classify each disease that is typed into a search box into one of the 19 ICD classification categories. Therefore, the researcher entered each different disease to obtain the appropriate classification to be entered into the analysis.

Primary diagnoses represented in this sample fell into one of 12 of the 19 ICD categories (see Appendix D for a complete listing of all 19 ICD categories), including: infectious diseases, neoplasms, diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism, endocrine and nutritional diseases, mental and behavioral disorders, diseases of the nervous system, diseases of the circulatory system, respiratory diseases, diseases of the skin and subcutaneous system, diseases of the musculoskeletal system and connective tissue, diseases of genitourinary system, and other signs and symptoms not elsewhere classified.

Diseases of the circulatory system, which includes heart disease, hypertension and stroke, had the highest representation, where 37.3% ($n = 56$) of the primary diagnoses listed in the medical records were in this category. Diseases of the musculoskeletal system, which includes arthritis, arthropathies and joint disorders, were the second most common primary diagnosis classification. In this sample, 19.3% ($n = 29$) of the recipients had a primary diagnosis that fit into the musculoskeletal disorders category. The third most commonly represented disease classification was diseases of the endocrine, nutritional and metabolic systems. Diabetes, malnutrition, obesity and metabolic disorders are classified into this category. Of the total sample, 14.7% ($n = 22$) of the recipients had a primary diagnosis classified as an endocrine, nutritional or metabolic

disease. The remaining nine ICD categories were reported with less than 10% of the subjects classified in each (See Table 2).

Table 2.

Primary Medical Diagnosis of Home Health Care Recipients Leading to Receiving Home Health Care Services

Disease Classifications	Frequency	Percent
Diseases of the Circulatory System	56	37.3
Disease of the Musculoskeletal System and Connective Tissue	29	19.3
Endocrine, Nutritional and Metabolic Diseases	22	14.7
Neoplasms	11	7.3
Diseases of the Respiratory System	11	7.3
Mental and Behavioral Disorders	6	4.0
Diseases of the Skin and Subcutaneous Tissue	6	4.0
Diseases of the Nervous System	3	2.0
Diseases of the Blood and Blood Forming Organs and Certain Disorders of the Immune Mechanism	2	1.3
Diseases of the Genitourinary System	2	1.3
Infectious Diseases	1	.7
Other ^a	1	.7
Total	150	100.0

^a Diseases falling into the classification of Symptoms, Signs and Abnormal Clinical and Laboratory Findings, Not Elsewhere Classified were classified as Other.

Total Number of Medical Diagnosis

Medicare recipients must have at least one primary diagnosis needing treatment from one of the skilled services provided under the Medicare guidelines. The data set allowed for the inclusion of up to five additional diagnoses to be recorded in addition to the primary diagnosis. The researcher summed the number of diagnoses listed in the data source to provide a total number of medical diagnoses for each patient. The results showed that only one (.7%) patient had only one diagnosis, while 36% (n = 54) had six diagnoses listed (the researcher only allowed for the documentation of six diagnoses due to the fact that the primary diagnosis is the medical condition that lead to the referral, and

Table 3.

Total Number of Medical Diagnoses of Home Health Care Recipients

Number of Diagnosis	Frequency	Percent
1	1	.7
2	7	4.7
3	27	18.0
4	22	14.7
5	39	26.0
6	54	36.0
Total	150	100.0

few more than five additional diagnosis would receive regular medical intervention). In addition, 26% (n = 39) had five diagnoses, 14.7% (n = 22) had four diagnoses, 18% (n = 27) had three diagnoses, and 4.7% (n = 7) had two diagnoses (See Table 3).

Medical Prognosis

Medical Prognosis was coded into the patient's chart as: poor, good/fair, or unknown. The majority of the sample, 85.3% (n = 128), was coded as having a good/fair prognosis. A smaller portion, 14% (n = 21) were coded as having a poor prognosis, and only .7% (n = 1) was coded as unknown.

Objective Two

The second objective was to compare individuals in the sample on selected demographic characteristics (age at the time they began receiving home health services, gender, race, marital status at admission to services, primary diagnosis leading to receiving home health services, total number of medical diagnoses and medical prognosis) by whether or not they received social work services. Of the seven demographic characteristics on which the recipients who received social work services were compared to those who did not, five were measured on a categorical scale of measurement and two were measured as continuous data. The comparisons on the five categorical variables were conducted using the chi-square statistic to examine the degree to which they were associated with receipt of social work services.

When the variable primary diagnosis was examined for its independence from whether or not the client received social work services, a total of 11 different categories of primary diagnoses were included in the data. However several of the categories were found to have insufficient numbers to support the analysis. Therefore, the 11 categories were collapsed into a smaller number of categories to enable the analysis to be conducted. To accomplish this purpose, the researcher combined all of the cells in the primary diagnosis variable that had insufficient numbers of responses with the "Other" category. This resulted in a total of six categories of primary medical diagnoses were

examined including: neoplasm's (Cancers), endocrine and nutritional and metabolic diseases, mental and behavioral disorders, diseases of the circulatory system, diseases of the respiratory system, diseases of the musculoskeletal system and connective tissue, and symptoms not elsewhere classified, to include those diagnostic categories with insufficient numbers ($n = 5$).

Of the five Chi-square analyses that were conducted, only two (gender and medical prognosis) were found to be statistically significant, indicating that these two variables were not independent of the variable receipt of social work services (see Table 4).

Table 4.

Comparison of Clients Who Received Social Work Services and Clients Who Did Not Receive Social Work Services on Selected Demographic Characteristics

Variable	<u>N</u>	df	χ^2	p
Gender	150	1	11.85	.001
Medical Prognosis	149	1	8.77	.003
Race	150	2	3.40	.183
Primary Medical Diagnosis	150	6	8.575	.199
Marital Status	147	3	.48	.923

For each of the variables with a significant Chi-square value, the researcher further examined the association by presenting the appropriate contingency table.

Gender

The variable that was found to have the highest Chi-square value ($\chi^2_{(1)} (n = 150) = 11.85, p = .001$) was gender. When the contingency table between gender and

receipt of social work services was examined, the nature of the association between the variables was such that the majority of males (65.6%) did receive social work services while the majority of females (62.8%) did not receive social work services (See Table 5).

Table 5.

Cross-Classification of Home Health Care Recipients Who Received Social Work Services By Their Gender

		Gender		Total <u>N</u> %
		<u>Male</u> <u>n</u> %	<u>Female</u> <u>n</u> %	
	<u>n</u>	42	32	74
Received Social Work Visits	% ^a	65.6	37.2	49.3
	<u>n</u>	22	54	76
Did Not Receive Social Work Visits	% ^a	34.4	62.8	50.7
	<u>n</u>	64	86	150
Total	% ^a	100.0	100.0	100.0

Note. $X^2(1, N = 150) = 11.85, p = .001$

^a% within gender classification.

Medical Prognosis

The chi square value for medical prognosis, $X^2(1, N = 149) = 8.77, p = .003$, was also significant when comparing those home health care recipients who had social work services to those who did not. These results indicated that the majority of recipients who had a good/fair prognosis, 53.9% ($n = 69$), received social work services; whereas the majority of recipients who had a poor prognosis, 81% ($n = 17$), did not receive social work services (see Table 6).

Table 6.

Cross-Classification of Home Health Care Recipients Receiving Social Work Services to Those Not Receiving Social Work Services Based on Their Medical Prognosis

		Medical Prognosis		Total
		<u>Poor</u>	<u>Good/Fair</u>	<u>N</u>
		<u>n</u>	<u>n</u>	<u>%</u>
		<u>%</u>	<u>%</u>	
Received Social Work Visits	<u>n</u>	4	69	73
	<u>%a</u>	19	53.9	49
Did Not Receive Social Work Visits	<u>n</u>	17	59	76
	<u>%a</u>	81	46.1	76
Total	<u>n</u>	21	59	149
	<u>%a</u>	100.0	100.0	100.0

Note. $\chi^2 (1), (N = 149) = 8.77, p = .003$

a% within medical prognosis classification

The variables that were measured on an interval or higher scale of measurement were compared using the independent t-test statistic to determine if there was a significant difference between the group of recipients who received social work services and those who did not. The analysis was conducted on the variables: age at the time the recipient began receiving home health care services ($t_{148} = .152, p = .879$), and total number of medical diagnoses ($t_{148} = 1.420, p = .158$). No statistically significant differences were found for these two variables when the comparison was made by whether or not they received social work services.

Objective Three

The third objective was to describe the home health care recipients who received social work services on the following characteristics: reason for receiving the social work referral, the number of social work visits made, the psychosocial needs identified by the social worker, and the total number of psychosocial needs identified by the social worker. The data were analyzed using frequencies, percentages, means and standard deviations.

Reason for the Social Work Referral

In most cases, the reason for the social work referral is identified by a visiting nurse in his or her own words on a referral form. Medicare guidelines require that home health care patients have an identified psychosocial need which might impair his or her treatment or recovery from illness, to qualify for social work services. Therefore, all patients who receive social work services have at least one identified psychosocial need documented by a nurse in the medical record. The researcher recoded the reasons that were recorded in the nurse's own words in the medical records of those who received social work services, based on her five years of experience as a home health care social worker, into one of the six following categories: assistance with medication cost, long-term planning, unsafe home environment, counseling, community resource needs unspecified, and increased in-home support (a complete list of referral reasons reported is included in appendix E).

The reason for a social work referral identified most often by the visiting nurse was for assistance with medication cost, with 31.1% (n = 23) of the referrals fitting into this category of need. The second reason identified most often was a need for increased in-home support, with 17.6% (n = 13) of the sample needing this type of assistance from the social worker. The third most often identified reason was described as an unsafe

home environment, with 16.2% (n = 12) of the sample needing some assistance to improve their home environment. The remaining three categories had less than 15% representation (see Table 7).

Table 7.

Reasons Home Health Care Recipients Received a Social Work Referral

Reason	Number	Percent
Assist with Medication Cost	23	31.1
Increased In-Home Support	13	17.6
Unsafe Home Environment	12	16.2
Counseling	10	13.5
Long-term Planning	9	12.1
Community Resource Needs Unspecified	7	9.5
Total	74	100.0

Number of Social Work Visits Received

Medicare does not directly reimburse for social work visits under the PPS, but home health agencies are required to make social work services available to patients in conjunction with nursing, physical therapy, speech therapy and occupational therapy. The nurse case manager over the patient's care obtains approval for a social work visit once a need is identified. The social worker is able to make an initial evaluation visit under the original physician's order; he or she must obtain additional orders or permission from the patient's physician to make any additional visits. The mean number of social work visits was 2.81, and the median was 1.0. The actual minimum number of visits made was one

Table 8.**Number of Social Work Visits Home Health Care Recipients Received**

Number of Visits	Frequency	Percent
Initial Eval Visit Only No follow-up Contact	39	52.7
Initial Eval Visit and One Follow-up Visit	14	18.9
Initial Eval Visit and 3 or More Follow-up Visits	8	10.8
Initial Eval Visit and 1 Follow-up Phone Call	6	8.1
Initial Eval Visit and 2 Follow-up Visits	4	5.4
Initial Eval Visit and 2 Follow-up Phone Calls	2	2.7
Initial Eval Visit and 3 Or More Follow-up Pone Calls	1	1.4
Total	74	100.0

and the maximum was five. The majority of the sample, 52.0% (n = 39) received an initial evaluation visit only and no follow up contact. The second most frequently made number of visits, 18.7% (n = 14) included an initial evaluation visit and one follow up visit. The nature of contact for the remainder of the patients is presented in Table 8.

Psychosocial Needs Identified by the Social Worker

In addition to describing the home health care recipients who received social work services on their reason for the initial referral, the specific psychosocial needs of the recipients are identified. These needs were identified by the home health care social worker on the social work psychosocial assessment forms. This study includes the

following measurements of psychosocial needs: a description of the primary psychosocial need of the recipient as identified by being listed first on the psychosocial assessment form; a description of the secondary psychosocial need of the recipient as identified by being listed second on the assessment form; a description of the tertiary psychosocial need of the recipient as identified by being listed third on the assessment form; and the total number of psychosocial needs of the recipient as measured by the total number of psychosocial needs listed on the psychosocial assessment. The psychosocial needs data were available only for the 74 study participants who received social work services.

Primary Psychosocial Needs

The researcher entered the psychosocial need data from the medical records for a total of six possible psychosocial needs. The researcher first reviewed the social work visit notes from a sample of the medical records and devised a list of common psychosocial needs. The list was then coded into the SPSS dataset to allow for consistent entrance of the qualitative data. As new psychosocial needs were located in the medical records, they were added to the list. A total of 71 needs were identified in the medical records (See Appendix F for a list of the psychosocial needs as identified by the researcher).

The psychosocial need that was listed first on the social work assessment form was generally classified as the primary psychosocial need. However, the researcher reviewed the social work documentation in entirety for each patient and re-ordered the psychosocial needs of a few patients based on the researcher's professional opinion and the qualitative data in the social work visit notes with respect to assessment of needs. Few recipients in the social work sample had a total of six psychosocial needs identified, but a

substantial portion of the sample had at least three needs identified. Therefore, the researcher determined that the most effective presentation of data were to include information on the first three needs and then to present the summated total of psychosocial needs identified in the participants medical record.

The primary psychosocial need identified most often was “difficulty handling finances or affording medicines” ($\underline{n} = 18, 24.3\%$). The second most frequently identified primary psychosocial need was having “caregiver limitations” ($\underline{n} = 13, 17.6\%$). The third most frequently identified primary psychosocial need was equally distributed between "a

Table 9.

Primary Psychosocial Needs of Home Health Care Recipients as Identified by the Social Worker

Psychosocial Need	Frequency	Percent
Difficulty handling finances or affording meds	18	24.3
Caregiver Limitations	13	17.6
Emotional problems	12	16.2
Limited Support System to Meet Needs	12	16.2
Inadequate Home Setting/Environment	9	12.2
Assistance with Nursing Home Placement Or Hospice Services	4	5.4
Family Dysfunction Impeding Patient Care	4	5.4
Unsafe Home Environment	2	2.7
Total	74	100.0

meet needs" ($\underline{n} = 15, 23.4\%$). The second most frequently identified secondary

limited support system to meet needs" ($\underline{n} = 12, 16.2\%$) and "emotional problems" to include grief, anger and depression ($\underline{n} = 12, 16.2\%$). The remainder of the primary psychosocial needs had less than 10 in each category (See Table 9).

Secondary Psychosocial Needs

The secondary need identified most often was having a "limited support system to psychosocial need was having "emotional problems" such as grief, anger and depression ($n = 13, 20.3\%$). The third most frequently identified secondary psychosocial need was

Table 10.

Secondary Psychosocial Needs of Home Health Care Recipients as Identified by the Social Worker

Psychosocial Need	Frequency	Percent
Limited Support System to Meet Needs	15	23.4
Emotional Problems	13	20.3
Difficulty Handling Finances or Affording Medications	9	14.1
Inadequate Home Setting/Environment	8	12.5
Assistance with Nursing Home Placement Or Hospice Services	5	7.8
Unsafe Home Environment	4	6.3
Caregiver Limitations	4	6.3
Mental Limitations	4	6.3
Alleged Abuse/Neglect	1	1.6
Marital Conflict	1	1.6
Total	64	100.0

“difficulty handling finances or affording medicines” ($\underline{n} = 9$, 14.1%). The remainder of the primary psychosocial needs had less than eight in each category (See Table 10).

Tertiary Psychosocial Needs

Of the 74 subjects who received social work services, 49 had at least three psychosocial needs identified in the medical record. In line with the most frequent secondary psychosocial need, "a limited support system to meet needs" was recognized as the most frequently identified tertiary psychosocial need ($\underline{n} = 12$, 24.5%). The second most frequently identified tertiary need was “difficulty handling finances or affording medicines” ($\underline{n} = 11$, 22.4%). The remainder of the tertiary psychosocial needs were dispersed among the other eight tertiary needs identified (See Table 11).

Table 11.

Tertiary Psychosocial Needs of Home Health Care Recipients as Identified by the Social Worker

Psychosocial Need	Frequency	Percent
Limited Support System to Meet Needs	12	24.5
Difficulty Handling Finances or Affording Medications	11	22.4
Unsafe Home Environment	6	12.2
Assistance with Nursing Home Placement Or Hospice Services	5	10.2
Caregiver Limitations	5	10.2
Inadequate Home Setting/Environment	2	4.1
Mental Limitations	2	4.1
Family Dysfunction Impeding Patient Care	2	4.1
Total	49	100.0

Total Number of Psychosocial Needs Identified by the Social Worker

The researcher documented up to six psychosocial needs for each patient based on the documentation in the social work visit notes, but not all patients had a total of 6 psychosocial needs identified in the medical record. The total number of psychosocial needs was calculated by summing the number of needs identified for each patient. The mean number of needs identified was 2.98 (SD = 1.17). The majority of patients, 29.7 % (n = 22) had three needs identified. The second largest percentage of patients seen by social workers, 28.4% (n = 21) had 4 needs identified. Fifteen patients (20.3%) had two identified needs. Patients with only one or with five needs represented less than 15% of the sample (See Table 12).

Table 12.

Total Number of Home Health Care Recipient Psychosocial Needs Identified by the Social Worker

Number of Needs Identified	Frequency	Percent
One	10	13.5
Two	15	20.3
Three	22	29.7
Four	21	28.4
Five	6	8.1
Total	74	100.0

Objective Four

The fourth objective of the study was to describe individuals in the sample on selected personal characteristics, to include: functional status as measured by ADL and IADL scores at the time of admission to the agency and discharge, primary support/care person, frequency with which the primary care person provides assistance, and the types of assistance provided by the primary care person.

Functional Status

Upon admission to home health care services and at discharge, the admission nurse assesses each patient's functional status in two primary areas: Activities of Daily Living (ADL's) and Instrumental Activities of Daily Living (IADL's). The OASIS dataset guides the clinician to rate a patient's abilities on 15 specific activities (eight that measure ADL and seven that measure IADL). These 15 activities are measured on various scales ranging from three-point scales (0 to 2) to six-point scales (0 to 5). The OASIS scales use 0 to reflect full independence and the highest number on the scale to reflect full dependence. To facilitate the interpretation of the functional status assessments a conversion system recommended by Keepnews, Capitman, & Rosati (2004) was used to recode the functional status data such that all items were measured on a 100 point scale where higher values represented higher functional status. Descriptive information regarding each of the items (grouped by whether they measured ADL's or IADL's) is presented. In addition, summated ADL and IADL scores are presented to describe the study participants on their functional status.

Activities of Daily Living

Admission ADL scores were derived from OASIS indicators: M0640 through M0710 (See Appendix B). The ADL scale on which the study participants had the

highest score at the time of their admission to home health care services was the scale measuring the patient's ability to eat or feed him or herself meals and snacks (mean = 87.47, SD = 18.62). The scale with the second highest score measured the patient's ability at toileting (ability to get to and from the toilet or bedside commode) with a mean score of 77.50 (SD = 33.75). Closely related, the scale measuring the patient's ability to transfer from one item, like a bed, to a chair had the third highest mean score of 74.93 (SD = 20.09). Bathing had the lowest mean score of 51.60 (SD = 33.75). When all of the ADL scores were summed for a total ADL score, the mean score was 448.60 (SD = 181.81) out of a total possible score of 800 (See Table 13).

Table 13.

Activities of Daily Living Scores of Home Health Care Recipients at Admission

Activity	<u>n</u>	Mean ^a	Standard Deviation
Feeding or Eating	150	87.47	18.62
Toileting	150	77.50	33.75
Transferring	150	74.93	20.09
Ambulation	150	68.80	22.76
Grooming	150	61.78	35.69
Dressing Upper Body	150	58.44	36.02
Dressing Lower Body	150	55.55	36.17
Bathing	150	51.60	29.79
Summed ADL Scores		448.60	181.81

^aEach individual ADL score was measured on a 0 to 100 point scale. The summated ADL score was measured on a 0 to 800 point scale. Scales ranged from 0 to 700.

Discharge ADLs are measured using the same scales. Discharge ADL data is only collected when the patient is being discharged to the community, often noted as “discharge to self care”. The scale measuring the patient’s ability to eat or feed him or herself meals and snacks again had the highest mean score of 92.08 (SD = 13.43), followed by the patient’s ability at toileting with a mean score of 87.03 (SD = 25.41). Again, the scale measuring the patient’s ability to transfer from one item like a bed to a chair had the third highest mean score of 78.68 (SD = 19.96). When all the discharge ADL scores were summed for a total ADL score at time of discharge, the mean score was 471.61 (SD = 199.01) (See Table 14).

Table 14.

Activities of Daily Living Scores of Home Health Care Recipients at Discharge

Activity	<u>n</u>	Mean ^a	Standard Deviation
Feeding or Eating	106	92.08	13.43
Toileting	106	87.03	25.41
Transferring	106	78.68	19.96
Grooming	106	74.84	33.12
Ambulation	106	73.96	21.41
Dressing Upper Body	105	71.07	34.15
Dressing Lower Body	106	66.98	35.96
Bathing	106	62.64	28.96
Summed ADL Scores		471.61	199.01

Note. Forty-four cases were missing from the discharge data as a result of patients who were discharged to somewhere other than to the community, in which case discharge ADL data are not collected.

^a Scales ranged from 0 to 617.

Instrumental Activities of Daily Living

IADL scores were derived from OASIS indicators: M0720 through M0780 (See Appendix A). The scale measuring the patient's ability to use the telephone had the highest mean of 79.07 (SD = 33.28) at admission to the agency, followed by the patient's ability to manage oral medication, which had a mean of 54.08 (SD = 39.48). Ability to do own laundry was the IADL that had the lowest mean score of 19.67 (SD = 30.04). When all the admit IADL scores were summed for a total IADL score at time of admission to services, the mean score was 388.30 (SD = 173.73) out of a possible total score of 700. Scales ranged from a minimum of 0 to a maximum of 100 (See Table 15).

Table 15.

Instrumental Activities of Daily Living Scores of Home Health Care Recipients at Admission

Activity	<u>n</u>	Mean ^a	Standard Deviation
Use of Telephone	150	79.07	33.28
Management of Oral Medication	147	54.08	39.48
Meal Planning and Preparation	150	46.67	39.99
Use of Transportation	150	46.33	14.30
Shopping	150	29.10	25.12
Housekeeping	150	27.00	33.09
Laundry	150	19.67	30.04
Summed IADL Scores		388.30	173.73

Note. Data were missing for 2 cases on Management of Oral Medications.

^aScales ranged from 0 to 700.

Discharge IADLs are also measured using the same scales. Discharge ADL data

are only collected when the patient is being discharged to the community, along with the ADL data. The scale measuring the patient's ability to use the telephone had the highest mean score of 80.94 (SD = 32.59). Followed by the patient's ability to manage oral medication with a mean score of 62.86 (SD = 38.62). The ability to do laundry had the lowest mean score of 35.38 (SD = 38.47).

Table 16.

Instrumental Activities of Daily Living Scores of Home Health Care Recipients at Discharge

Activity	<u>n</u>	Mean ^a	Standard Deviation
Use of Telephone	106	80.94	32.59
Management of Oral Medication	105	62.85	38.62
Meal Planning and Preparation	106	57.55	39.52
Use of Transportation	106	53.77	19.15
Shopping	106	45.29	29.54
Housekeeping	106	44.34	38.47
Laundry	106	35.37	35.16
Summed IADL Score		471.61	199.01

Note. Forty-four cases were missing from the discharge data as a result of patients who were discharged to somewhere other than to the community, in which case discharge ADL data is not collected.

^aScales ranged from

Primary Support/Care Person

OASIS contains a number of indicators measuring social support. Admission nurses are responsible for identifying the patient's primary support person when completing the admission OASIS forms. The first social support indicator directs the

nurse to indicate the relationship of the person or persons providing care. The list of options, one of which must be chosen as the primary caregiver, include: spouse or significant other; daughter or son; other family member; friend, neighbor, or community church member; paid help; or no one person. If none of these options was selected, the researcher coded the variable as "no one", meaning the patient does not have a caregiver. The largest number of identified primary care persons, 34.2% ($n = 51$), was the recipient's daughter or son. Following children, the second most frequently identified group of primary care persons were the recipient's spouse or significant other (32.5%, $n = 35$). The third most frequently identified group of primary care persons were "other family member" (18.1%, $n = 27$), followed closely by "no one person" (16.1%, $n = 24$). The remaining care person options had less than 10% representation (See Table 17).

Table 17.

Primary Support/Care Person

Caregiver	Frequency	Percent
Daughter or Son	51	34.2
Spouse or Significant Other	35	23.5
Other Family Member	27	18.1
No One Person	24	16.1
Friend, Neighbor, or Community or Church Member	6	4.0
Paid Help	5	3.4
No one	1	.7
Total	149	100.0

Note. Support information was not available for one participant.

Frequency of Assistance Provided

In addition to identifying the primary care person, the OASIS dataset also directs the nurse to indicate the frequency with which the primary care person provides assistance. One of the following was selected in response to the prompt "how often does the patient receive assistance from the primary care person": 1.) Several times during the day and night, 2.) Several times during the day, 3.) Once daily, 4.) Three or more times per week, 5.) One or more times per week, 6.) Less often than weekly.

The majority of the sample, (51.5%, $n = 67$) received care at the highest frequency, including assistance several times during the day and night. The second largest percentage of the sample 23.1% ($n = 30$) received the second highest level of support in which assistance was provided several times during the day. The third highest

Table 18.

Frequency of Caregiver Support Provided to Home Health Care Recipients

Frequency of Support	Frequency	Percent
Several times during the day and night	67	51.5
Several times during the day	30	23.1
Once daily	17	13.1
Three or more times per week	6	4.6
One or two times per week	5	3.8
Less often than weekly	5	3.8
Total	130	100.0

Note. Data were missing for 20 participants and may be explained by the fact that 24 persons in the sample had "no one person" providing care, therefore care might have been provided sporadically.

percentage of the sample, received the third highest level of care including care once daily, with 13.1% of the sample ($n = 17$) receiving care once a day (See Table 18).

Type of Assistance Provided by Primary Caregiver

The OASIS dataset also directed the nurse or clinician completing the form to indicate what types of assistance the primary caregiver provided. The assistance options included: ADL assistance (help with dressing, bathing, eating etc.); IADL assistance (help with meal preparation, medications, housekeeping, finances etc.); environmental support (help with housing, home maintenance etc.); psychosocial support (socialization, companionship etc.); helps with participation in the medical care plan; serves as the financial agent or power of attorney; serves as a health care agent or medical power of attorney; and/or "unknown". The clinician completing the form checked all types of assistance that were applicable for each patient. The researcher made each assistance option into a dichotomous variable in which the assistance was provided or not provided for each type of caregiving option.

Psychosocial support was the caregiving assistance provided the most often with 93.1% ($n = 122$) of the sample receiving this type of assistance from their primary caregiver. Environmental support (housing assistance) was the second most frequent type of support provided, with 90.1% ($n = 118$) of the sample receiving some type of environmental support. The type of assistance received third most often was help with Instrumental Activities of Daily Living, such as help with meal preparation, transportation, housekeeping, laundry, shopping, and medications, with 88.5% ($n = 116$) of the sample receiving help with these functions. The fourth most frequent type of caregiving assistance provided, 75% ($n = 99$), was assistance in the application of the patient's medical plan of care, which means the caregiver actively "advocated or

facilitated the patient's participation in appropriate medical care". It is interesting to note that the type of caregiver assistance with the least representation was assistance with medical directives such as a medical power of attorney or medical health care agent, with only 18.9% (n = 25) receiving such assistance (see table 19).

Table 19.

Assistance Provided to Home Health Care Recipients by the Primary Caregiver

Type of Assistance	<u>Provided</u>		<u>Not Provided</u>		<u>Total</u>	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Psychosocial Support	122	93.1	9	6.7	131	100
Environmental Support	118	90.1	13	9.9	131	100
Assistance with IADLs	116	88.5	15	11.5	131	100
Assist Patient in the Application of Medical Plan of Care	99	75.0	33	25.0	132	100
Assistance with ADLs	52	39.7	79	60.3	131	100
Assist as Patient's Financial Agent or Power of Attorney	39	29.5	93	70.5	132	100
Assist as Patient's Medical Power of Attorney	25	18.9	107	81.1	132	100

The Research Hypotheses and Questions

Two sets of research hypotheses and questions were used in an attempt to construct a model which might show what variables were associated with the outcomes of home health care services. The two sets of research hypotheses and questions used data available in the medical records of home health care recipients who had received home health care services and been discharged. Final disposition and length of stay are outcome measures commonly used in social work health care research (Auslander, 2000).

Research Hypotheses and Questions Using Final Disposition as the Dependent Variable

(1) It is hypothesized that an individual with higher levels of social support is more likely to have a final disposition of remaining in the community. Social support is treated as a moderating variable, because it is believed to influence the relationship between the patient's functional status and ability to remain in the community.

(2) Functional status, as measured by activities of daily living (ADL) scales and instrumental activities of daily living (IADL) scales, are associated with a patient's final disposition, where those with higher levels of functioning and independence are able to remain in the community at discharge.

Secondary research hypotheses related to final disposition as an outcome measure are based on the predictors of long-term care use literature. They investigate the associations between final disposition and demographic variables to include age, gender and race. They include the following:

(3) It is hypothesized that patients with increased age are less likely to have a final disposition of remaining in the community.

(4) It is hypothesized that female patients are more likely to have a final disposition of remaining in the community.

(5) It is hypothesized that African American patients are more likely to remain in the community than Caucasian patients.

(6) The relationship between social work intervention and final disposition is formulated as the following research question: Does social work intervention affect the final disposition of Medicare home health care recipients? The study seeks to measure what influence social work intervention has on final disposition, above and beyond all the

other independent variables. In other words, what additional explanatory power is provided by the introduction of social work services?

Originally the final disposition data were entered as: 1) remained in the community; 2) admitted to a hospital or a rehabilitation facility; 3) admitted to a nursing home; 4) admitted to hospice services; or 5) the patient died. However many of the categories of the variable did not have sufficient numbers to conduct the analyses. For this reason, final disposition data were recoded as either discharged to the community or not, where all cases in which the patient did not remain in the community, including those transferred to acute care (hospital admission), those transferred to long-term care (hospice or nursing home), and those transferred for short-term care (rehabilitation hospital) were grouped together. If the patient died following admission to an acute care facility, they were still coded as did not remain in the community.

The first analysis examined the influence of specific variables on the outcome of home health care recipients as measured by their final disposition at time of discharge from the agency. The independent variables were entered into a logistic regression analysis in two blocks. The social support variables were forced into the first block as moderating variables. The remaining independent variables, including functional status, age, gender, race and social work intervention, were entered into the second block in a stepwise fashion in order to test the study hypotheses.

Social support was forced into the first block in the logistic regression. Two social support measures were used from the OASIS data. The first measure was the frequency with which the primary care person provides assistance as indicated by one of the following: several times during the day and night, several times during the day, once daily, 3 or more times per week, or less often than weekly. The second measure was

constructed by adding the types of assistance provided by the primary care person. Originally the types of assistance were entered as dichotomous variables, such that the subject received a “1” for each type of assistance received and a “0” for each type of assistance not received, for each of the seven types of assistance outlined on the OASIS forms. The type of assistance score used in the logistic regression analysis was derived from totaling all of the types of assistance that were provided for each individual in the sample.

The second block of the analysis included the addition of functional status, age, gender, race and social work intervention to the model. Each of these variables represents a hypothesis of the study. However, since the literature is unclear on the specific order of entry of the variables examined, all of the measures were entered into the second block of the analysis, and stepwise was chosen for the entry method so that the most efficient explanatory model could be identified. Functional status consists of 15 separate ADL and IADL measures. Each functional status measure was entered into the logistic regression analysis individually to maximize the ability of the researcher to make application of the research findings to policy and practice issues. Using this technique produced a model that included only those factors that made a significant contribution to the model.

The social support measures were forced into the first block of the explanatory model to control for their influence as moderating variables on disposition. Neither the frequency with which the primary care person provides assistance (Wald = 1.72, $p = .19$) nor the sum of the types of assistance provided by the primary careperson (Wald = .31, $p = .58$) were found to be significant contributors to the model. The overall R^2 value of the model was .04 (Nagelkerke $R^2 = .040$). The model resulted in a -2 Log likelihood value of 153.11 which was not significantly less than the initial -2 Log likelihood value of 156.

717 ($\chi^2_{(2)} = 3.608$, $p = .165$). Additionally, no significant difference was found between the predicted and the actual model based on the Hosmer and Lemeshow test results ($\chi^2 = 8.067$, $p = .43$).

Functional status and the remaining demographic variables were entered into the second block in a stepwise fashion. A total of 15 Functional status measures (eight ADL measures and seven IADL measures) were entered into the second block of the explanatory model with an overall R^2 value of .16 (Nagelkerke $R^2 = .156$). This model containing both the social support measures and functional status measures had a -2 Log likelihood value of 141.93 which is a significant reduction ($\chi^2 = 11.18$, $p < .001$) from the initial -2 Log likelihood value of 156.717. However, the only individual functional status measure to enter the model as a significant contributor was the measure for Ambulation/Locomotion (M0700) (Wald = 10.037, $p = .002$). The remaining 14 functional status measures, including the ADL and IADL measures did not contribute significantly and were dropped from the model. In addition, the model was determined to be the model of best fit on the basis of the Hosmer and Lemeshow test results ($\chi^2 = 7.92$, $p = .441$). A non-significant Hosmer and Lemeshow test result is indicative of a good model fit according to Hair (1998).

The remaining independent variables, age, gender, race and social work intervention were then entered into the second block of the logistic regression analysis in a stepwise fashion to see what additional explanatory power could be added beyond that contributed by social support and functional status measures. Again, only one variable was found to make a significant contribution to the model; this variable was the Ambulation/Locomotion measure (See table 20 for all variables included in the analysis).

Table 20.

Logistic Regression Analysis of Social Support, Functional Status, Age, Race, Gender and Social Work on Final Disposition of Home Health Care Recipients

	X ²	df	Sig	
Model	14.79	3	.002	
Model Summary				
Variable	Wald	Sig	B ^a	SE
Block 1				
Freq. of Caregiver Support	.561	.454	1.160	.198
Totaled types of Caregiver Assistance	.129	.720	.947	.153
Block 2				
Ambulation status	10.037	.002	1.028	.009
-----Variables Not in the Equation-----				
Variable	Score			Sig
Feeding	2.443			.118
Transportation	1.769			.184
Housekeeping	1.452			.228
Use of Telephone	1.447			.229
Bathing	1.427			.232
Dressing Lower Body	.499			.480
Management of Oral Medications	.487			.485
Meal Preparation	.427			.514
Gender	.345			.557
Laundry	.332			.564
Grooming	.232			.630
Dressing Upper Body	.141			.708
Race	.079			.779
Social Work	.076			.783
Age	.062			.803
Toileting	.041			.839
Transferring	.018			.894
Shopping	.010			.922

The classification results were examined for the identified logistic regression model including the social support variables and the ambulation measure to determine the

effectiveness of the model in correctly classifying subjects as to their discharge outcome. Overall, the complete model classified 72.8% correctly regarding whether or not they were discharged back to the community after receiving home health care services. These results indicate a statistically significant model. The classification results are presented in Table 21.

Table 21.

Classification Results for Discharge Disposition Outcomes

Discharged to the Community Observed	Discharged to the Community Predicted		Percentage Correct
	No	Yes	
No	12	28	30.0
Yes	6	79	92.9

Note. Overall Percent of correctly classified cases = 72.8%

Research Hypothesis and Questions Using Length of Stay in the Community as the Dependent Variable

The second set of research hypotheses and questions investigated the relationship between the dependent variable of length of time the patient received home care, or documented days living in a community setting, and the same independent variables.

(1) The first hypothesis in the second set proposes that functional status, as measured by activities of daily living (ADL) scales and instrumental activities of daily living (IADL) scales, impacts the length of time a patient will receive home care services, where those with higher levels of functioning and independence receive care for shorter periods of time than those with lower functional status scores.

(2) The second hypothesis in this set is that an individual with higher levels of social support is more likely to have a shorter length of time receiving home health care.

Secondary research hypotheses related to length of stay in the community as an outcome measure investigate the associations between length of stay and demographic variables, to include age, gender and race. The relationship between the demographic variables of age, gender and race are posed as research questions without directional hypotheses in the home health care literature, and are as follows:

(3) Does age have an effect on the patient's length of time receiving home care services?

(4) Does gender have an effect on the patient's length of time receiving home care services?

(5) Does race have any effect on the patient's length of time receiving home care services?

The relationship between social work intervention and length of stay is formulated as a hypothesis based on the discharge planning literature for social workers in hospital settings.

(6) It is hypothesized that home health care patients who receive social work intervention will have shorter lengths of stay than those who did not receive social work intervention.

The first analysis was to determine if a model exists explaining a significant portion of the variance in the lengths of stay of home health care recipients measured from the day they were admitted to home health care services to the day they were discharged from home health care services, using the same variables as in the first set of hypotheses and research questions. In conducting the regression analysis, the variables were entered into the analysis in a stepwise manner to accomplish the research objectives.

The researcher examined the data for the presence of excessive multicollinearity among the independent variables in the analysis. This was accomplished through examination of the tolerance values and the variance inflation factor (VIF) for the data included in the analysis. The tolerance values ranged from .864 to .999, indicating no problems with multicollinearity. The VIF values ranged from 1.001 to 1.847 (See Table 22). The tolerance values and the VIF values were within acceptable ranges according to

Table 22.

Collinearity Diagnostic Measures for Regression of Length of Time Receiving Home Care Services on Selected Demographic Data and Social Work Intervention

Factor	Tolerance	VIF
Dressing Upper Body	.541	1.847
Dressing Lower Body	.567	1.763
Grooming	.584	1.712
Housekeeping	.666	1.501
Laundry	.676	1.478
Bathing	.691	1.447
Toileting	.735	1.361
Feeding or Eating	.736	1.358
Management of Oral Medication	.739	1.353
Shopping	.748	1.337
Ability to Use Telephone	.769	1.301
Ambulation	.786	1.272
Transferring	.817	1.224
Frequency of Caregiver Support	.864	1.157
Types of Caregiver Assistance Summed	.875	1.143
Transportation	.891	1.122
Gender	.990	1.010
Age at Start of Care	.990	1.010
Race	.998	1.002
Social Work Intervention	.999	.999

Hair (1998), as the tolerance values were all above .10 (p. 193), therefore it was concluded that no instance of excessive colinearity existed among the independent variables.

The results of the regression analysis are presented in Table 23. All the independent variables were entered into the regression analysis at once in a stepwise fashion so that only the variables making a significant contribution to the model would remain. Only one variable entered the model as a significant contributor to the outcome of the length of time a patient receives home health care services. The IADL measure for meal preparation and planning (r^2 change = .031, $p = .049$) made a significant contribution to the model. Overall the significant regression model explained 3.1% of the variance in length of time receiving home care services, a small percent of the variance.

Table 23.

Regression of Social Work, Functional Status, Social Support, Race, Age and Gender Using Length of Time Receiving Home Care Services as the Dependent Variable

Source	df1	MS	F	Sig	
Regression	1	130513.443	3.963	.049	
Residual	124	4083262.6			
Total	125				
-----Variables in the Equation-----					
Variable	R ²	r ²	F	Sig F	Beta
	Cumulative	Change	Change	Change	
Meal Preparation And Planning	.031	.031	3.963	.049	-.176
----- Variables Not in the Equation-----					
Variable			t	Sig.	
Social Work			-1.436	.153	
Gender			-1.155	.251	
Laundry			-.894	.373	
Frequency of Caregiver Support			-.879	.381	
Ability to Use Telephone			-.867	.388	
Grooming			.732	.466	
Feeding or Eating			.520	.520	
Types of Caregiver Assistance Summed			.632	.529	
Ambulation			.583	.561	
Management of Oral Medications			-.444	.658	
Dressing Upper Body			.403	.688	

(Table continued on page 93)

Dressing Lower Body	-.388	.698
Toileting	-.341	.733
Shopping	-.323	.747
Race	.313	.754
Transferring	-.281	.779
Age at Start of Care	.190	.850
Bathing	-.054	.957
Transportation	.027	.979

CHAPTER 5

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of the study was to examine the nature of social work intervention in home health care services post implementation of a prospective payment system instituted by the Balanced Budget Act of 1997, and also to examine the relationship between home health care recipient outcomes and functional status, social support, age, gender, race and social work services. The study was prompted by the need for a social work response to the dramatic changes that have occurred in the home health care arena. The changes which have occurred since the institution of a prospective payment system have dramatically limited the ability of social workers in providing services to homebound persons suffering from acute and chronic illnesses. The research objectives, hypothesis and questions specified in chapter one guided the study. A brief overview of the methodology is presented, followed by a summary of the findings. Eight main conclusions are drawn from the studies findings. Implications and recommendations for future research are discussed after each main conclusion.

Methodology

The study is an ex-post facto exploratory study, which utilized data from the medical records of home health care recipients who received home health care services from a private home health company in Opelousas, Louisiana between the dates of January 1, 1999 and January 1, 2005. The measures for the independent variables, except the data for social work services, were derived from individual patient OASIS forms, which measure functional status, clinical status and health service utilization. The social work data were collected from the social work visit notes, also contained in the patient's

medical record. The study design compared patients who received social work services to those who did not on specific variables of interest.

In order to meet the research objectives, the researcher drew a sample with two strata. One stratum was composed of home health care recipients who received social work services during the study's time period and met the study's requirements. To compose the second stratum, the researcher drew patients who received home health services and met the study's requirements, but did not receive social work services. The researcher collected subjects for the second stratum until a comparable number of subjects to the first stratum had been obtained, producing a total sample of 150 subjects; 74 of the subjects had social work intervention and 76 did not have social work intervention.

Objectives one through four were established to describe the sample. They were accomplished using descriptive statistics and t-tests. The research hypotheses and questions were created to guide the study toward discovering what variables are associated with home health outcomes. The level of variable measurement and the goal of the research study prompted the use of both logistic regression and multiple regression procedures to test the study hypotheses and questions. The intent was to develop a statistical model that could aid in the prediction of variables associated with home health care recipient outcomes. Discharge disposition and length of time receiving services were the outcome measures used in the study. Logistic regression was used with the first set of research hypotheses and questions, because the discharge disposition was a dichotomous variable. Multiple regression was used on the second set of hypotheses and questions as the number of days receiving services was a continuous variable.

Summary of the Findings

Objective One

The first objective was to describe the individuals who received home health care services from the agency in which the data were collected. Slightly more than half of the sample ($n = 76$, 50.7%) did not receive social work services and 49.3% ($n = 74$) did receive social work services. The home health care recipient's mean age was 75 ($SD = 13.10$). The sample also included 86 females who represented 57.3% of the sample and 64 males who made up 42.7% of the sample. The majority of the sample, 53.3% ($n = 80$), were White and 46.0% ($n = 69$) were Black or African-Americans; only .7% ($n = 1$) were American Indian or Alaska Native. The majority of the sample were also widowed ($n = 78$, 53.1%), forty-five (30.6%) were married, fourteen (9.5%) were single and only ten (6.8%) were divorced.

The sample was also described on the basis of the recipient's medical status. The primary medical diagnosis of 37.3 % ($n = 56$) of the sample fell under the classification of diseases of the circulatory system. Diseases of the musculoskeletal system were the second most common primary diagnosis classification with 19.3% ($n = 29$) of the recipients having a primary diagnosis that fit into the musculoskeletal disorders category. The third most commonly represented disease classification was diseases of the endocrine, nutritional and metabolic systems; 14.7% ($n = 22$) of the recipients had a primary diagnosis classified in this category. The total number of diagnoses listed in the medical record (up to six) were represented by 36% ($n = 54$) of the sample having had six or more diagnoses, 26% ($n = 39$) had five diagnoses, 14.7% ($n = 22$) had four diagnoses, 18% ($n = 27$) had three diagnoses and 4.7% ($n = 7$) had two diagnoses. In addition, the majority of the sample, 85.3% ($n = 128$), was reported as having a good/fair prognosis. A

smaller portion, 14% (n = 21) were coded as having a poor prognosis, and only .7% (n = 1) was coded as unknown.

Objective Two

The second objective was to compare the home health care recipients in the sample who did and did not receive social work services on the demographic and diagnostic characteristics of age at the time they began receiving home health services, gender, race, marital status at admission to services, primary diagnosis leading to receiving home health services, total number of medical diagnoses and medical prognosis. Of these demographic variables, gender and medical prognosis were the only variables to have statistical significance. The variable that was found to have the highest Chi-square value ($\chi^2_{(1)} (n = 150) = 11.85, p = .001$) was gender, indicating that the majority of males (65.6%) did receive social work services while the majority of females (62.8%) did not receive social work services. The chi square value for medical prognosis, $\chi^2 (1, N = 149) = 8.77, p = .003$, was also significant when comparing those home health care recipients who had social work services to those who did not. These results indicated that the majority of recipients who had a good/fair prognosis, 53.9% (n = 69) received social work services, and the majority of recipients who had a poor prognosis, 81% (n = 17), did not receive social work services.

Objective Three

The third objective was to describe the home health care recipients in the sample who received social work services on the following characteristics: reason for receiving the social work referral, the number of social work visits made, the psychosocial needs identified by the social worker, and the total number of psychosocial needs identified by the social worker. Using a categorization system established by the researcher, the reason

for receiving a social work referral listed most often by the visiting nurses was for “assistance with medication cost”, with 31.1% (n = 23) of the referrals fitting into this category of need. The second reason identified most often was a “need for increased in-home support”, with 17.6% (n = 13) of the sample needing this type of assistance. The third most often identified reason was described as “an unsafe home environment”, with 16.2% (n = 12) of the sample needing some assistance to improve their home environment.

The minimum number of social work visits made was one and the maximum number was four. The median number of visits was 1.0. The majority of the sample, 52.0% (n = 39) received an initial evaluation visit only with no follow up contact documented in the medical record. The second most frequently made number of visits included an initial evaluation visit and one follow up visit with 18.7% (n = 14) of the sample in this category.

When the recipients were described by their primary, secondary and tertiary psychosocial needs identified by the social worker, the primary need identified most often was “difficulty handling finances or affording medicines” (n = 18, 24.3%). The second most frequently identified primary psychosocial need was having “caregiver limitations” (n = 13, 17.6%). The third most frequently identified primary psychosocial need was equally distributed between “a limited support system to meet needs” (n = 12, 16.2%) and “emotional problems” to include grief, anger and depression (n = 12, 16.2%).

The secondary psychosocial need identified most often was having a “limited support system to meet needs” (n = 15, 23.4%). The second most frequently identified secondary psychosocial need was having “emotional problems” such as grief, anger and

depression ($n = 13$, 20.3%). The third most frequently identified secondary psychosocial need was “difficulty handling finances or affording medicines” ($n = 9$, 14.1%).

The most frequently identified tertiary psychosocial need was "a limited support system to meet needs" ($n = 12$, 24.5%). The second most frequently identified tertiary need was “difficulty handling finances or affording medicines” ($n = 11$, 22.4%).

A total of five psychosocial needs, as identified by the social worker, could be recorded into the data set. The mean number of needs identified was 2.98 ($SD = 1.17$). The largest group of patients, 29.7 % ($n = 22$) had three needs identified.

Objective Four

The fourth objective was to describe the home health care recipients in the sample on selected personal characteristics, to include: functional status as measured by ADL and IADL scores at the time of admit to the agency and discharge, primary support/care person, frequency with which the primary care person provides assistance, and the types of assistance provided by the primary care person.

At admission to the home care agency services, the ADL scale measuring the patient’s ability to eat or feed him or herself meals and snacks had the highest mean score of 87.47 on a 0 to 100 point scale ($SD = 18.62$), followed by the patient’s ability at toileting (ability to get to and from the toilet or bedside commode) with a mean score of 77.50 ($SD = 33.75$). The scale measuring the patient’s ability to transfer from one item, like a bed, to a chair had the third highest mean score of 74.93 ($SD = 20.09$). Bathing had the lowest mean score of 51.60 ($SD = 33.75$). The discharge ADL data were only able to be collected when the patient was discharged to the community; therefore discharge ADL data were not available for every patient in the sample. The scale measuring the patient’s ability to eat or feed him or herself meals and snacks, again had the highest mean score of

92.08 (SD = 13.43). Followed by the patient's ability at toileting with a mean score of 87.03 (SD = 25.41). The scale measuring the patient's ability to transfer from one item like a bed to a chair had the third highest mean score of 78.68 (SD = 19.96).

At admission to the home care agency, the IADL scale measuring the patient's ability to use the telephone had the highest mean of 79.07 (SD = 33.28), followed by the patient's ability to manage oral medication, which had a mean of 54.08 (SD = 39.48). Ability to do own laundry was the IADL that had the lowest mean score of 19.67 (SD = 30.04). The scale measuring the patient's ability to use the telephone had the highest mean score of 80.94 (SD = 32.59) for the patients who were discharged to the community, followed by the patient's ability to manage oral medication with a mean score of 62.86 (SD = 38.62). The ability to do laundry had the lowest mean score of 35.38 (SD = 38.47).

The home health care recipients were also described on the basis of their primary support or care person and how often they provided care. The recipient's daughter or son was the primary caregiver for the largest percent, ($\underline{n} = 51$, 34.2%) of the sample. The recipient's spouse or significant other was the second most frequently reported providers (18.1%, $\underline{n} = 27$). The majority of the sample, 51.5% ($\underline{n} = 67$) received the highest amount of care possible on the OASIS measure, including assistance several times during the day and night. The second largest percentage of the sample 23.1% ($\underline{n} = 30$) received the second highest level of support in which assistance was provided several times during the day.

There was a range of possible types of services the caregiver could provide to the patients in the sample. Psychosocial support was the care giving assistance provided the most often with 93.1% ($\underline{n} = 122$) of the sample receiving this type of assistance from their

primary caregiver. Environmental support was the second most frequent type of support provided, with 90.1% ($n = 118$) of the sample receiving this type of support. Assistance with Instrumental Activities of Daily Living, such as help with meal preparation, transportation, housekeeping, etc. represented the third most often type of support provided, with 88.5% ($n = 116$) of the sample receiving help with these functions. The fourth most often type of caregiving assistance provided, 75% ($n = 99$) was assistance in the application of the patient's medical plan of care, which means the caregiver actively "advocated or facilitated the patient's participation in appropriate medical care".

The Research Questions and Hypothesis Using Final Disposition as the Dependent Variable

The first hypothesis predicting the impact of functional status on the dependent variable of final disposition (discharged to the community or not) was only partially supported by the study's results. When the independent variables of interest (social support, fifteen functional status measures, age, race, gender, and social work services) were entered into the logistic regression analysis, the individual functional status measure of Ambulation/Locomotion was the only variable to significantly contribute to the model (Wald = 10.037, $p = .002$). These results indicated that the patient's ability to ambulate independently was a significant predictor of the patient's ability to remain in the community. The predictive model including Ambulation/Locomotion was determined to be the model of best fit on the basis of the Hosmer and Lemshow test results ($X^2 = 7.92$, $p = .441$).

The Research Questions and Hypothesis Using Length of Stay in the Community as the Dependent Variable

A model was found explaining 3.1% of the variance in length of time receiving home care services. One variable entered the model as a significant contributor to the

outcome of the length of time a patient receives home health care services. The IADL measure for meal preparation and planning (r^2 change = .031, p = .049) made a significant contribution to the model. The other independent variables of interest (social support, 14 other ADL and IADL measures, age, race, gender, and social work intervention) did not contribute significantly to the model. These results indicated that the patient's ability to prepare for and plan meals was the only variable to influence the number of days the patient received home care services.

Conclusions, Implications and Recommendations Related to the Study Population

Conclusion One

Home health recipients in this study's sample have many demographic similarities. First, they are elderly. This conclusion is based on the study's findings showing that the participant's mean age was 75 (SD = 13.10). Second, they are similar in that almost all participants had multiple health care problems. The findings indicated that 36% of the sample had six or more medical diagnoses. Third, the five most frequently reported primary medical diagnoses representing almost 86% of the sample were conditions that typically represent chronic, debilitating medical conditions, such as heart disease, arthritis, diabetes, cancer and chronic obstructive pulmonary disease. This finding is closely related to the data reported by the U.S. Department of Health and Human Services, which indicated that the conditions of heart disease, stroke, cancer, and diabetes are the most common chronic conditions (Older American Update, 2006).

Conclusion Two

The study participants had low levels of functional status at the time of admission to home health care services. This conclusion is based on the findings that the average (mean) ADL scores for activities such as bathing, dressing upper and lower body,

grooming and ambulation were lower than 70 on a 100 point scale, upon admission. The IADL admission scores for skills such as laundry, housekeeping, shopping, use of transportation, and meal planning and preparation were lower than 50 on a 100 point scale.

The findings supporting conclusions one and two are consistent with the literature. Smith (1999) reported that as many as 3 million elderly persons with acute and chronic illnesses rely on the Medicare home health benefit to receive medical care at home, and The Health Care Financing Administration (now Centers for Medicare and Medicaid Services)(1999) home health care patient profile report described the largest group of home care users as age 85 or older, likely to have impairment in three or more activities of daily living (ADLs), and likely to live alone.

Implications and Recommendations for Conclusions One and Two

Medical social workers need skills and knowledge in working with gerontological populations. They also need specific knowledge of disease processes and the implications of various chronic illnesses on patients and families. Those with chronic, debilitating conditions need strong support systems and resources in place to provide for their long-term needs at home. The results of this study reinforce the *John A. Hartford Foundation* initiative to infuse gerontological material into social work education curriculum. The researcher recommends that schools of social work continue to add to and revise their curricula based on the research being conducted with aged populations. Efforts should also be made to infuse more findings from gerontological studies into continuing education offerings for licensed social workers.

Conclusions, Implications and Recommendations Related to Home Health Care Recipient's Support Systems

Conclusion Three

Family members are the primary caregivers of home health care recipients and more than half of those caregivers provide full time care. This conclusion is based on the findings that daughters or sons provide 34.2% of the caregiving, spouses or significant others provide 23.5% and other family members provide 18.1% of the caregiving. Overall, more than 75% of caregiving is provided by family members. In addition, 51.5% of the care is provided several times during the day and night.

Implications and Recommendations for Conclusion Three

As managed care continues to grow as a popular means of controlling health care cost, it seems inevitable that family members will assume more and more caregiving duties. As already noted by the patient population characteristics, home health care recipients are likely to have multiple needs and require high levels of care. As the elderly population is currently growing at a tremendous rate, the need for resources designed to meet the needs of the elderly and the family members who care for them is tremendous.

As noted by Corcoran (1997), managed care has evolved as a strategy for controlling the expenditure of health care dollars. The Prospective Payment System instituted by the Balanced Budget Act of 1997 specifically directed the control of Medicare and Medicaid health care expenditures for elderly, homebound persons needing medical services in their own homes. However, those who have weak caregiving systems and those who require long-term care from their families are more vulnerable to requiring nursing home care, which in many cases ends up being paid for through Medicaid. So, ultimately, the reduction in home care services could lead to higher federal spending through the provision of long term nursing home care. Social workers need to utilize their

advocacy skills and their understanding of the political process to heighten legislators' awareness of the long-term care cost that can be associated with managed care policies in the provision of health care services to the elderly.

The findings related to the study population and their caregivers also highlight the need for a greater assessment of the resources and services available to aid ill, elderly individuals who have a decreased ability to live independently in their communities. As the aging population continues to grow, there is a heightened need for more resources designed to aid the elderly in living independently in their communities. Social workers should be at the forefront of developing innovative resources and services to meet the needs of today's elderly population.

Conclusions, Implications and Recommendations Related to Receiving Social Work Services

Conclusion Four

The home health care recipients in the study's sample received a limited number of social work visits. This conclusion is based on the finding that 52.0% of the sample received an initial evaluation visit only with no follow up contact documented in the medical record.

Implications and Recommendation for Conclusion Four

The limited number of social work visits provided by the current prospective payment system certainly affects the way home health social workers provide intervention. Social workers operating under managed care systems may need to adapt a brief therapy model or crisis intervention model of care if they wish to maximize their effectiveness and survival. Social workers in the field should seek educational opportunities in brief therapy and crisis intervention methods. Additional research is needed to explore what types of services social workers can provide effectively with a

limited number of visits and how those specific interventions then impact home health care recipient outcomes. This research should also include an exploration of the skills required by social workers providing brief interventions. The ability to provide effective brief interventions would undoubtedly require a high level of competence and skill, which could advance the position of social work in health care, if the interventions can be linked to improved outcomes.

Conclusion Five

Home health care patients who received social work intervention primarily had financial needs and needs for increased in-home support. This conclusion was based on the finding that 31.1 % of the reasons listed by the nurse or health care professional making the social work referral could be described as needing “assistance with medication cost”, and 17.5% were described as needing “increased in-home support”. Similarly, the primary psychosocial needs identified by the social worker were “difficulty handling finances or affording medications” (24.3%) and “caregiver limitations” (17.6%).

These findings are consistent with the home health care literature describing social workers’ primary roles as being community resource planning or linkage with resources in the community, and counseling services (Dyeson et al., 1999; Goode, 2000). These findings are promising in that social workers received appropriate referrals from respective health care professionals. However, these findings are also disturbing in consideration of the number of visits social workers made. Again, it is a challenge for social workers to provide community resource assistance and particularly counseling interventions with only one visit, a nearly impossible task.

These findings are also important in relation to the exclusion of social support measures from the case-mix model, which determines the level of payment agencies

receive for individual patients and ultimately the level of care those patients receive. Both nurses and social workers identified the need for increased in-home support as a primary need of home health care patients, demonstrating the importance of the family in recovery from illness. Additional research is needed to demonstrate how the presence of, or lack of social support directly impacts home health outcomes.

Implications and Recommendations for Conclusion Five

The identified need for increased in-home support has research and policy implications. If additional research can demonstrate the link between social support and home health care outcomes, social workers can advocate for the revision of the case-mix model to include social support measures, which may allow patients to receive additional home health benefits. This research would also provide social workers with greater influence over the development of in-home supportive resources within the community. The researcher recommends that social workers take the lead in conducting research that examines the link between social support and home health care outcomes.

Conclusion Six

The home health care patient's prognosis and gender were related to whether he or she received social work services or not. The majority of patients who had a good/fair prognosis (53.9%) received social work services. However, the majority of recipients who had a poor prognosis (81%) did not receive social work services. This finding seems to be contradictory to the literature, which has described the key roles social workers play in health care settings as assisting with discharge planning (Kadushin & Kulys, 1993) and maximizing the patient and caregiver's abilities to cope with illness and caregiving demands (Cox 1992). It seems likely that patients with poorer prognoses would have a greater need for social work intervention, because they generally require a greater level of

care needing additional community resources and assistance with discharge planning. Patients with a poorer prognosis and those who care for them would also likely benefit from counseling to improve coping skills needed to deal with long-term illness and disability. However, this finding may be a result of the reduced use of social work services in home care; patients with a poorer prognosis may have a higher need for social work services, but one visit would do them little good, so social work referrals are not being made.

Secondly the findings showed that more males (65.6%) received social work services than females (37.2%). This finding is interesting in that 57% of the sample was female and 42.7% was male, indicating that social workers received referrals on the gender that had the least representation in the study's sample. In addition, this finding is contradictory with early social work research in home health care by Levande, Bowden, and Mollema (1987), which found that the majority of home health patients were 75 and over, female, Caucasian and had multiple health problems.

Implications and Recommendations for Conclusions Six

These findings are hard to explain without consideration of the current influence of managed care on health care services. The researcher speculates that these results, again, are based on the need for home health agencies to lower overall cost. Social workers may not be receiving referrals on patients with poor prognoses, because there is a cap on the amount of reimbursement an agency may receive based on the patient's prognosis, and those patients with poor prognoses will more than likely require a higher level of costly care. The limited budget in home care is analogous with slices of a pie. There is competition for a piece of the pie, or an ability to make home care visits, but

there are only a limited number of slices. Social workers must now compete with other disciplines for a piece of the pie, and they are getting left out.

The relationship between gender and social work services is also compelling. These results could also be based on the cost constraints that have been imposed on the system. More research on the needs of elderly males versus elderly females may be needed. The researcher speculates that females may be able to voice their needs more openly, and report needs that would require the social worker to make numerous visits to meet. Another speculation is that the nurses making the social work referrals may assume that males primarily need help with in-home support services such as homemaker services, which would be easy for a social worker to arrange with one visit. Therefore, the nurses may be more willing to make referrals on male home health care recipients, because they are perceived as having fewer needs, and possibly because they are also less likely to voice their needs.

It is time for home health care social workers to partner with other health care social workers in demonstrating the impact social workers may have in aiding patients in dealing with specific health care issues. The results of the present study should encourage social workers to seek out and create outcome measures which are sensitive to the psychosocial interventions performed with the aging population to improve their well-being.

Conclusions, Implications and Recommendations Related to the Study's Outcome Measures

Conclusion Seven

Demographic characteristics of age, gender and race were not associated with the outcomes of discharge disposition and length of time receiving home care services. This finding is contradictory to both the literature on predictors of nursing home admission

and predictors of movements between care giving arrangements for the elderly. The majority of the literature has found that age, gender and race do impact both an individual's likelihood of being admitted to a nursing home and making numerous moves to varying care giving environments (Choi, 1999; Belgrave & Bradsher, 1994; Jackson, Longino, Zimmerman, & Bradsher, 1991, Wykle & Choi, 1993).

Implications and Recommendations for Conclusion Seven

This finding could help to remove some of the preconceived ideas that those in the health care field often hold based on an individual's age, gender and/or race. This finding is important for social workers who work with the elderly and must advocate for clients who have experienced discrimination based on their age, gender and/or race. For instance, a 70 year old who has suffered a stroke may not necessarily get the same treatment and rehabilitative services as a 90 year old who has suffered a stroke based on the age difference and one's expectation that as a person ages they are less likely to remain independent. Similarly, an elderly female may not be given the same medical treatment and rehabilitative services as an elderly male patient based on one's belief that females are not able to be as independent as males and are more likely to be admitted to a nursing home.

The researcher recommends that additional studies be designed and conducted with the premise of advancing the healthcare field's understanding of individual differences in the aging process. Additional research highlighting the wide range in characteristics and abilities of the elderly might encourage health care providers to encourage all patients to reach their full potential, and then afford them the medical resources to do so.

Conclusion Eight

Receipt of social work services was not associated with the home health outcome measures utilized in this study. The model that emerged from the regression analyses indicated that the patient's ability to ambulate independently and his ability to prepare and plan meals were the only variables to impact home health outcomes as measured by the study's design. These findings are consistent with the long-term care literature, which has identified functional status, as measured by ADLs and IADLs, to be one of the strongest predictors of nursing home admissions (Green & Ondrich, 1990; Hanley, Aleexih, Wiener & Kennell, 1990; Wolinsky, Callahan, Fitzgerald, & Johnson, 1992; Choi, 1999, Kersting, 2001).

Another way of interpreting the findings from conclusion eight is to consider that the social work services were so limited that the social workers were not able to provide adequate interventions to have an impact on patient outcomes.

Implications and Recommendations for Conclusion Eight

The lack of impact imparted by social work services was a disturbing finding for the researcher; however these results are not surprising based on the fact that social work visits reduced significantly following the passage of the Balanced Budget Act of 1997. The researcher believes there are a number of plausible explanations for these findings. The explanations can be examined from different aspects; first one can examine reasons why ADL and IADL abilities were associated with positive outcomes. This aspect can be explained by the findings which indicated a little over half the total sample (53.1%) was widowed. In addition, over half of the sample (52.3%) was cared for primarily by their son, daughter or other family members. In today's caregiving environment, many caregivers of the elderly are caught in what has been termed "the sandwich generation" in

which they are providing care to their elderly parents, as well as their own young children. Today's caregivers are often burdened by the stress of providing care to multiple family members. It is, therefore understandable that many of the home health care recipients who are more functional and independent in walking and planning for and preparing their own meals are more likely to remain in the community and have shorter lengths of care.

Another explanation may be based in the outcome measures that were used in the present study. After careful review, the measures chosen may not have accurately examined the areas where social workers have the greatest opportunity for impact. Future research should utilize the results of the present study which found ambulation and meal preparation abilities as significant in impacting patient outcomes, and further investigate the relationship between social work intervention and these variables.

The researcher also suggests that the outcome was related to not only the complexity of social work services provided, but also the complex nature of the needs of the chronically ill population. For instance, a patient with a chronic, debilitating illness and a limited support system is often sent home from the hospital, because the patient himself and/or his family is not emotionally ready to pursue nursing home placement at the time of discharge. In the researcher's experience as a medical social worker in acute care settings and home health care, I found that many individuals needed to return to their own home to try and manage on their own before admitting the need for long-term care in an institution.

Home health care social workers routinely saw these patients in the past before managed care entered the home health care arena, and assisted the patient and family in emotionally accepting the life altering move from their own home to a long-term care

facility. The acknowledgement that he or she is no longer independent and able to care for him or herself is often an overwhelming process that can lead elderly individuals into a depression. In addition, patients and families generally do not know how to go about looking for a nursing home, how to assess which ones will provide good care, and what resources are available to help with the astronomical cost of long term care. The home health care social worker can be a valuable resource in helping families to deal with long term care issues.

The nature of the home health client and the typical needs he or she presents with pose challenges for social workers, but the challenge is increased by limited visits. Realistically, a social worker would have a difficult time assisting a patient with the long range planning process with one or two visits. The establishment of rapport and a trusting relationship with an elderly individual, who needs assistance with such a life changing event, may require two visits alone. Even if a trusting relationship is established between the patient and social worker with one visit, it often takes additional visits to schedule family conferences to educate all family members and elicit support with the process. In cases where nursing home assistance is needed, and many others like it, the social work services are not likely to reduce the length of stay or assist the patient in remaining in the community, therefore there is often a conflict between the goals the social worker establishes for the patient and the overall goal of home health care service provision (discharge the patient to the community).

There are two reasons the specific social work intervention of counseling for long range planning may be valued less in the current cost constrained environment. First, home health outcomes are often measured fiscally; good fiscal outcomes are imperative to the survival of home health agencies especially since the implementation of the

prospective payment system. Social workers who require numerous visits to aid an individual with long range planning only serve to draw limited reimbursement funds from other health care professionals providing services in the home. Second, a primary goal of home health care intervention is to provide services which will enable an individual to remain in his own home. A social worker's goal for long term planning is often achieved when the patient is transitioned into a long term care facility. Nursing home placement is not always a desirable goal, but it often meets the physical and emotional needs of the individual and his or her family.

Realistically, social workers may not be associated with whether or not a home health patient is able to remain in the community. They might not be associated with the amount of time a patient receives services from a home health care agency either. However, these findings do not convince the researcher that social work services do not improve the wellbeing of home health care recipients. Ultimately, social workers seek to improve the lives of home health care recipients through the effective delivery of medical social services. The difficulty lies in measuring the improvement social workers might have had on the lives of home health care recipients.

Quality of life measures could provide a better indicator of the impact of social work services with home health care recipients. Unfortunately, the design of the present study and the availability of home health care data did not allow for any true measurement of the patient's quality of life. Although discharge disposition may impact quality of life in terms of the patient's desire to remain in the community versus a nursing home, it only measures one dimension of quality of life. Social work intervention would likely impact the patient's psychosocial or emotional quality of life.

There are numerous quality of life measures available today. The researcher would recommend that future home care studies incorporate a quality of life measure, such as the SF10, which has been used widely with a variety of populations. Additional focus should be directed towards the overall psychological well-being of home health care recipients. The researcher would recommend increased attention to the measurement of depression among the elderly and the impact of depression on the outcomes of home health care recipients. Social workers should actively educate health care providers of the negative impact depression and other mental disorders can have on health care outcomes. The researcher would also recommend that social workers educate the medical community regarding the needs of home health care patients and the complexity involved in providing social services to meet their needs.

Finally, the researcher recommends additional research be conducted examining the psychosocial needs identified by home health care patients and what types of interventions would best meet those needs. For instance, the present study identified caregiver limitations, limited support system to meet needs, inadequate home environment and need for assistance with nursing home placement or hospice services as one of the six primary psychosocial needs identified by the social worker. An identification of these needs would prompt a home health social worker to explore long-term care arrangements with a patient and his family, but future research could identify what specific social work interventions provide positive outcomes for patients needing assistance with long rang planning.

Final Conclusions

An unfortunate conclusion drawn from this study is that the study should have been conducted more than ten years ago before managed care entered the home health

care arena. The researcher believes that the reduction in social work visits, which occurred after the passage of the Balanced Budget Act of 1997, has in effect prevented social work's ability to impact the well-being of home health care recipients.

Unfortunately, this final conclusion has broader implications for the aging population. The researcher believes the findings also indicate that the older Americans receiving home health care services have less access to social work services. Elderly persons have few opportunities to access psychosocial interventions in helping them to deal with the aging process. The Medicare home health benefit was one of the few windows through which social workers were able to see to the well-being of the elderly. This window has now been closed.

The non-findings contribute to the conclusions of the study. The possible risk of social work services becoming extinct in other arenas where social work services are provided is a lesson to be learned from the present study. The profession must take a more proactive stance in demonstrating the outcomes of social work interventions.

Assumptions/Limitations of the Study

The study was exploratory in nature due to the dearth of research on social work services in the home health care arena. It was an early attempt to examine the nature of home health care services following the implementation of managed care policies. The researcher's literature review revealed no social work studies which have attempted to examine the association between social work intervention and home health care outcomes as defined by the industry. Challenges and limitations were posed related to the lack of similar studies to model the current study after. The study was also limited by the fact that ex-post facto data were used. The data were also primarily quantitative. Future research would ideally utilize both quantitative and qualitative data from current home

health care recipients. The data utilized in the present study were all subjectively entered by the visiting nurses, where the actual recipient of the services might be able to identify aspects of care that aided in recovery, which are not identified on the standardized OASIS forms.

The measures of psychosocial variables were not very specific or sensitive. The OASIS forms do have indicators for depression, but they are not part of the case mix model which determines reimbursement, and they are not used to indicate the need for a social work referral. The use of quality of life measures and measures of patient satisfaction would better reflect social work outcomes and also enhance future research studies. Future research might also aid in the creation of outcome measures more sensitive to the psychosocial interventions employed by social workers.

Additional limitations were presented by the environment in which the study was conducted. The challenges involved in conducting research in the home environment have already been addressed. In the present study, the researcher was also challenged by the fact that she was not employed in the agency in which the data were collected. For this reason the researcher had no knowledge of the nurses' perception of social work services or their level of education as to what types of interventions social workers are trained to provide. Social work services were provided by contract social workers, most of whom were no longer employed with the agency at the time of data collection. The referring nurses' knowledge of social work intervention or lack of may have influenced a final limitation, which was presented by the sample size. The sample size was restricted due to the original intent of creating two comparable groups, one which received social work services and one which did not. The researcher drew as many home health

recipients who had received social work services as possible following the sample collection procedures; this number was so limited that it limited the total sample size.

Advancement of Social Work Knowledge

Existing social work literature pays little attention to outcome studies in the field of home health care. Ell (1996) noted gaps in the social work research particularly in the areas of managed care, intervention outcomes, quality of care, and intervention effectiveness. Moreover, the Institute for Advancement of Social Work Research (IASWR) has highlighted these areas as priorities of national research funding organizations. Social workers are confronted more each day with the growing needs of the elderly. Empirical studies are needed to demonstrate the impact of social work interventions with elderly, ill individuals.

This study has practice, policy, and research implications. The prospective payment system in home health care forces homecare providers to restore patients to their highest level of functioning and independence while at the same time dramatically controlling cost. Additional research is needed to indicate how the changes in home health care services have impacted the well-being of its recipients.

The NASW Code of Ethics prompts social workers to become advocates for the needs of vulnerable populations. Many managed care tactics pose ethical challenges for social workers. Research and evaluation of policies and practice interventions are viable means of advocating for those we seek to help.

REFERENCES

- Anderson, N.B. & Armstead, C.A. (1995). Toward understanding the association of socioeconomic status and health: A new challenge for the biopsychosocial approach. *Psychosomatic Medicine*, 57, 312-325.
- Antonovsky, A. (1979). *Health, Stress and Coping*. San Francisco: Josey Bass.
- Auberback, C., Rock, B.D., Goldstein, M., Kaminsky, P. & Heft-Laporte, H. (2000). A department of social work uses data to prove its case. *Social Work in Health Care*, 32(1), 9-23.
- Auslander, G.K. (2000). Outcomes of Social Work intervention in health care settings. *Social Work in Health Care*, 31(2), 31-46.
- Belgrave, L.L. & Bradsher, J.E. (1994). Health as a factor in institutionalization: Disparities between African Americans and whites. *Research on Aging*, 16, 115-141.
- Belgrave, L.L., Wykle, M.L. & Choi, J.M. (1993). Health, double jeopardy and culture: The use of institutionalization by African Americans. *The Gerontologist*, 33, 379-385.
- Berkman, B. (1980). Psychosocial problems and outcome: An external validity study. *Health and Social Work*, 5(3), 5-21.
- Berkman, B. (1996). The emerging health care world: Implications for social work practice and education. *Social Work*, 41 (5), 541-551.
- Berkman, B., Bedell, D., Parker, E., McCarthy, L. & Rosenbaum, C. (1988). Preadmission screening: An efficacy study. *Social Work in Health Care*, 13(3), 35-50.
- Berkman, B. & Rehr, H. (1972). Social needs of the hospitalized elderly: A classification. *Social Work*, 17, 80-88.
- Berkman, B. & Volland, P. (1995). Health care practice overview. *Encyclopedia of Social Work*. Washington, DC: NASW Press, 143-148.
- Berkman, L.F. (1995). The role of social relations in health promotion. *Psychosomatic Medicine*, 57, 245-254.
- Berwick, D.M. & Knapp, M.G. (1987 Annual Supplement). Theory and practice for measuring health care quality. *Health Care Financing Review*, 49-55.
- Bishop, C. & Skwara, K.C. (1993). Recent growth of Medicare home health. *Health Affairs*, 12(3), 95-110.

- Blazyk, S. & Canavan, M.M. (1986). Managing the discharge crisis following catastrophic illness or injury. *Social Work in Health Care*, 11(4), 19-32.
- Boyack, V.J. & Bucknum, A.E. (1991). A quick response team: A pilot project. *Social Work in Health Care*, 16(2), 55-68.
- Buhler-Wilkerson, K. (2001). *No place like home, a history of nursing and home care in the United States*. Baltimore, Maryland: The Johns Hopkins University Press.
- Burnette, D., Morrow-Howell, N. & Chen, Li-Mei. (2003). Setting priorities for gerontological social work research: A national Delphi study. *The Gerontologist*, 43(6), 828-838.
- Callahan, D. (1992). Reforming the health care system for children and the elderly to balance care and cure. *Academic Medicine*, 67(4), 219-222.
- Caro, F. & Blank, A. (1988). *Quality impact of home care for the elderly*. New York: Haworth.
- Caroff, P. & Mailick, M.D. (1985). The patient has a family: Reaffirming social work's domain. *Social Work in Health Care*, 10(4), 17-34.
- Center for Health Policy Research, University of Colorado Health Sciences Center. (2000). *Implementing outcome-based quality measures for home care*. Denver, CO: Author.
- Centers for Medicare and Medicaid Services. (2003a). *Home Health Agency Manual*. [on-line]. Retrieved June 15, 2003 from http://cms.hhs.gov/manuals/11_hha/HH00.asp.
- Chen, A. (2000). *The impacts of per-episode prospective payment for Medicare home health care on the quality of care: Less is not necessarily worse*. Mathematica Policy Research, Inc. Princeton, NJ.
- Chiacchia, K.B. (1993). Link is found between nerves and immune cells. *Harvard Medical Area Focus*, 20, 1, 4.
- Choi, N.G. (1999). No longer independent: The dynamics of care arrangements for frail elderly parents. *Journal of Gerontological Social Work*, 32(3), 27-47.
- Choi, N.G. & Wodarski, J.S. (1996). The relationship between social support and health status of elderly people: does social support slow down physical and functional deterioration? *Social Work Research*, 20(1), 52-64.
- Author unknown. (September, 2003). *CMS Health Care Industry Market Update*. [on-line]. Retrieved May 24, 2004 from <http://www.cms.hhs.gov/marketupdate>.

- Cohen, C.I., Teresi, J. & Holmes, D. (1985). Social networks, stress, and physical health: A longitudinal study of an inner-city elderly population. *Journal of Gerontology*, 40, 478-486.
- Corcoran, K. (1997). Managed care: Implications for social work practice. In R.L. Edwards, I.C. Colby, A. Garcia, R.G. McRoy & L. Videka-Sherman (Eds.), *Encyclopedia of Social Work* (19th ed.). Washington, DC: NASW Press.
- Cornelius, D. (1994). Managed care and social work: Constructing a context and a response. *Social Work in Health Care*, 20(1), 47-63.
- Cowan, A., Lazenby, H.C., Martin, A.B., McDonnell, P.A., Sensenig, A.L., Smith, C.E., Whittle, L. S., Zezza, M.A., Donham, C.S., Long, A.M. & Stewart, M.W. (1999). National health expenditures, 1999, *Health Care Financing Review*, 22 (4), 77-104.
- Cox, C. (1992). Expanding social work's role in home care. *Social Work*, 37, 179-183.
- Crisler, K.S. & Richard, A.A. (2002). Interpreting outcome reports, the basics. *Home Healthcare Nurse*, 20(8), 517-522.
- Demel, B. & Baker, J.R. (Summer 2000). Effects of the home care interim payment system on access to home health care for people on Medicare. *The Journal of Long Term Home Health Care, Case Management Journals*, 2(2), 108-115.
- Diamond, T.A., Denton, T.A. & Matloff J.M. (1993). Fee-for-benefit: A strategy to improve the quality of health care and control cost through reimbursement incentives. *Journal of the American College of Cardiology*, 22(2), 343-352.
- Donabedian, A. (1969). Evaluating the quality of medical care. In H.C. Schulberg, A. Sheldon & F. Baker (Eds.), *Program evaluation in the health fields* (pp.186-215). New York, NY: Behavioral Publications.
- Dugan vs. Bowen*, U.S. District Court for the District of Columbia, Number 87-0383, August 1, 1988.
- Dyeson, T.B., Murphy, J. & Stryker, K. (1999). Demographic and psychosocial characteristics of cognitively-intact chronically ill elders receiving home health services. *Home Health Care Services Quarterly*, 18(2), 1-25.
- Elias, J.W., Ferry, R. & Treland, J. (2000). When world views collide: A commentary on home health care case-mix and patient outcomes. *Experimental Aging Research*, 26(3), 181-189.
- Ell, K. (1996). Social work and health care practice and policy: a psychosocial research agenda. *Social Work*, 41(6), 583-592.
- Ell, L. (1984). Social networks, social support, and health status: A review. *Social Service Review*, 58, 133-149.

- Engel, G.L. (1980). The clinical application of the biopsychosocial model. *The American Journal of Psychiatry*, 137, 535-544.
- Evans, R., Hendricks, D., Lawrence-Umlauf, K., & Bishop, D. (1989). Timing of social work intervention and medical patients' length of hospital stay. *Health and Social Work*, 14, 277-282.
- Federal Register. (July 3, 2000). *Medicare program; Prospective payment system for home health agencies: proposed rules*, vol. 65 no 128 (p.41228). Washington D.C.: Author.
- Fort Cowles, L.A. (2000). *Social Work in the health field, a care perspective*. New York: The Haworth Press.
- Goode, R.A. (2000). *Social work practice in home health care*. Binghamton, NY: Hawthorn Press.
- Government Accounting Office. (1999). *Medicare home health agencies: closures continue, with little evidence beneficiary access is impaired* (GAO/HEHS-99-120 M 1999). Washington DC: Author.
- Green, V.L. & Ondrich, J.I. (1990). Risk factors for nursing home admissions and exits: A discrete time hazard function approach. *Journal of Gerontology: Social Sciences*, 45, S250-S258.
- Hair, J. (1998). *Multivariate Data Analysis with Readings*, 5th ed. Upper Saddle River, J.N.: Prentice Hall.
- Hanley, R.J., Aleexih, L., Wiener, J.M. & Kennell, D.L. (1990). Predicting elderly nursing home admissions: Results from the 1982-1984 national long-term care survey. *Research on Aging*, 12, 199-228.
- Haydel, J. (2000). Clinical implications of prospective payment in home health care. *Home Care Provider*, August, 148-153.
- Health Care Financing Administration (2001). *OASIS Overview*. [on-line]. Retrieved November 15, 2002 from <http://www.hcfa.gov/medicaid/oasis/hhoview.htm>.
- Health Care Financing Administration. (1999). *A profile of Medicare home health: Chart book*. Publication No. HCFA-10138.
- Health Care Financing Administration. (August 8, 1997). *Home Health Care: Improving Quality, Tightening Standards*. Fact Sheet from HCFA Press Office. Retrieved November 12, 2005 from <http://www.hcfa.gov/facts/f970808.htm>.
- The Health Insurance Manual, publication #11 (1997). Retrieved November 14, 2005, from http://www.hcfa.gov/pubforms/transmit/transmittals/comm_date_dsc.htm.

- Holden, M. (1989). Meeting diagnostic related group goals for elderly patients. *Health and Social Work*, 14, 13-21.
- Home health care outcome and assessment information (OASIS)*, Senate Select Committee on Aging (May 24, 1999) (testimony of Jeff Kang, M.D., M.P.H., Director, Office of Clinical Standards and Quality Health Care Financing Administration). Retrived November 2002, from <http://www.hcfa.gov/testimony/1999/oasis1.htm>.
- Hooyman, N. R. & Kiyak, A.H. (2005). *Social Gerontology: A Multidisciplinary Perspective*, 7th ed. Boston, MA: Allyn and Bacon.
- Jackson, M.F. (1994). Discharge planning: issues and challenges for gerontological nursing. A critique of the literature. *Journal of Advanced Nursing*, 19, 492-502.
- Kadushin, G. & Kulys, R. (1993). Discharge planning revisited: What do social workers actually do in discharge planning? *Social Work*, 38(6), 713-726.
- Kane, R.A., Kane, R.L., Illston, L.H. & Eustis, N.N. (1994). Perspectives on home care quality. *Health Care Financing Review*, 16(1), 69-89.
- Kaplan, D. M., Smith, A., Grobstein, R. & Fischman, S.E. (1973). Family mediation of stress. *Social Work*, 18(4), 60-69.
- Kayser, K., Hansen, P. & Groves, A. (1995). Evaluating social work practice in a medical setting: How do we meet the challenges of a rapidly changing system? *Research on Social Work Practice*, 5(4), 485-500.
- Kazdin, A.E. (1998). *Research design in clinical psychology*, 3rd Ed. Boston: Allyn and Bacon.
- Keehn, D.S., Roglitz, C., & Bowden, L.M. (1994). Impact of social work on recidivism and non-medical complaints in the emergency room. *Social Work in Health Care*, 20(1), 65-75.
- Keepnews, D., Capitman, J.A. & Rosati, R.J. (2004). Measuring patient-level clinical outcomes of home health care. *Journal of Nursing Scholarship*, 36(1), 79-85.
- Kersting, R.C. (2001). Predictors of nursing home admission for older black Americans. *Journal of Gerontological Social Work*, 35(3), 33-50.
- Komisar, H.L. (2002, Winter). Rolling Back Medicare Home Health. *Health Care Financing Review*, 24(2), 33-55.
- Kosecoff, J. Kahn, K.L. & Rogers, W. (1990). Prospective payment system and impairment at discharge. *Journal of American Medical Association*, 264 (15).

- Kramer, A.M., Shaughnessy, P.W., Marjorie, K.B. & Crisler, K.S. (1990). Assessing and assuring the quality of home health care: A conceptual framework. *The Milbank Quarterly*, 68(3), 413-442.
- Lawlor, E.F. & Raube, K. (1995). Social interventions and outcomes in medical effectiveness research. *Social Service Review*, 69(3), 383-404.
- Lee, J.S. (2002). Social work services in home health care: Challenges for the new prospective payment system era. *Social Work in Health Care*, 35(3), 23-36.
- Lee, J.S. & Rock, B. (2001). *Social work in home health care (HHC): Challenges in the new prospective payment system (PPS)*, (policy action paper). Ravazzin Center for Social Work Research on Aging and Fordham University Graduate School of Social Service: New York.
- Levande, D.I., Bowden, S.W. & Mollema, J. (1987). Home health services for dependent elders: The social work dimension. *Journal of Gerontological Social Work*, 11(3/4), 5-17.
- Liu, K., Long, S.K., & Dowling, K. (2003). Medicare Interim Payment System's Impact on Medicare Home Health Utilization. *Health Care Financing Review*, 25(1), 81-97.
- Lockery, S.A., Dunkle, R. E., Kart, C.S. & Coulton, C.J. (1994). Factors contributing to the early rehospitalization of elderly people. *Health and Social Work*, 19(3), 82-191.
- Madigan, E.A. (2002). The scientific dimensions of OASIS for home care outcome measurement. *Home Healthcare Nurse*, 20(9), 579-583.
- Mamon, J., Steinwachs, D.M., Fahey, M., Bone, L.R., Oktay, J. & Klein, L. (1992). Impact of hospital discharge planning on meeting patient needs after returning home. *Home Services Research*, 27, 155-175.
- McCall, N., Korb, J., Petersons, A. & Moore, S. (2002). Constraining Medicare home health reimbursement: What are the outcomes? *Health Care Financing Review*, 24(2), 57-76.
- McCall, N., Petersons, A., Moore, S. & Korb, J. (2003). Utilization of home health services before and after the Balanced Budget Act of 1997. *Health Affairs*, 20(3), 189-198.
- Medicare Home Health Agencies Prospective Payment System; proposed rule, 65 Fed. Reg. 58133 vol. 65, no. 128. (July 3, 2003). Retrieved October 15, 2001, from <http://www.hcfa.gov>.
- Medicare Payment Advisory Commission. (June 1999). *Report to the Congress: Selected Medicare Issues*. Washington, DC.

- Miller, M. E., Longino, C.F., Anderson, R.T., James, M.K. & Worley, A.S. (1999). Functional Status, Assistance, and the risk of a community-based move. *The Gerontologist*, 39(2), 187-200.
- Mor, V., Allen, S.M., Siegel, K. & Houts, P. (1991). Determinants of need and unmet need among cancer patients residing at home. *Health Services Research*, 27, 337-360.
- Mor-Barack, M.E. (1988). Support systems intervention in crisis situations: Theory strategies and a case illustration. *International Social Work*, 31(4), 285-304.
- Mor-Barack, M.E., Miller, L.S. & Syme, L.S. (1991). Social networks, life events, and health of the poor, frail elderly: A longitudinal study of the buffering versus the direct effect. *Family and Community Health*, 14(2), 1-13.
- Morrow-Howell, N., Proctor, E.K. & Berg-Weger, M. (1993). Adequacy of informal care for elderly patients going home from the hospital. *Journal of Applied Gerontology*, 12, 188-205.
- Morrow-Howell, N., Proctor E. K. & Dore, P. (1998). Adequacy of Care: The Concept and Its Measurement. *Research on Social Work Practice*, 8(1), 86-102.
- Morrow-Howell, N., Proctor, E. & Mui, A.C. (1991) Adequacy of discharge plans for elderly patients. *Social Work Research & Abstracts*, 27, 6-13.
- Nathanson, I.L. & Tirrito, T.T. (1998). Gerontological social work, theory into practice. Springer Publishing Company: New York, NY.
- National Association of Social Workers. (1999). *NASW Code of Ethics*. Washington, D.C.: Author.
- National Association of Social Workers. (1995). *NASW clinical indicators for social work and psychosocial services in home health care*. Washington, D.C.: NASW Press, 1-9.
- National Association of Social Workers. (1994). Social work speaks, social work in home health care. *NASW Policy Statement*. (3rd ed.) NASW Press. Washington, DC. Author.
- Oktay, J.S., Steinwachs, D.M., Mamon, J., Bone, L.R., & Fahey, M. (1992). Evaluating social work discharge planning services for elderly people: access, complexity, and outcome. *Health and Social Work*, 17, 290-298.
- Older Americans Update. (2006). Key Indicators of Well Being. Retrieved December 15, 2006 from http://www.agingstats.gov/update2006/Health_Status.pdf.
- Pincus, A. & Minahan, A. (1973). *Social Work Practice: Model and Method*. Itasca, IL: F.E. Peacock Publishers, Inc.

- Potthoff, S., Kane, R. & Franco, S. (1997, Winter). Improving Hospital Discharge Planning for Elderly Patients. *Health Care Financing Review*, 19(2), 47-72.
- Proctor, E.K., Morrow-Howell, N & Kaplan, S. (1996). Implementation of discharge plans for chronically ill elders discharged home. *Health and Social Work*, 21(1), 30-40.
- Prospective Payment Assessment Commission. (1997, June). *Medicare and the American health care system: Report to the Congress*: Washington, D.C.
Public Law 105-33. (August 5, 1997) Title IV, Subtitle G, BB4601-4616, Medicare Home Health Benefit.
- Rudberg, M., Sager, M. & Zhang, J. (1996). Risk factors for nursing home use after hospitalization for medical illness. *Journal of Gerontology: Medical Sciences*, 51(5), 189-194.
- Shapiro, E. & Tate, R. (1985). Predicting long term care facility use among the elderly. *Canadian Journal of Aging*, 4, 11-19.
- Shaughnessy, P.W., Crisler, K.S., Schlenker, R.E. & Hittle, D.F. (July 1999). *Medicare's OASIS: Standardized outcome and assessment information set for home health care*. Retrieved June 15, 2003 from Center for Health Services and Policy Research. Denver, CO.
- Shaughnessy, P.W., Schlenker, R.E. & Hittle, D.F. (1994). Home health outcomes under capitated and fee-for-service payment. *Health Care Financing Review*, 16(1), 187-222.
- Shen, B. McCreary, C.P. & Myers, H.F. (2004). Independent and mediated contributions of personality, coping, social support and depressive symptoms to physical functioning outcome among patients in cardiac rehabilitation. *Journal of Behavioral Medicine*, 27(1), 39-63.
- Sienkiewicz, J.I. (2000). Answers to frequently asked questions about the proposed home care prospective payment system. *Home Healthcare Nurse*, 18(5), 323-330.
- Smith, B.M., Hawkins, D.J., Maloy, K.A. (1999). *An examination of Medicare home health services: A descriptive study of the effects of the Balanced Budget Act Interim Payment System on access to and quality of care*. Washington, DC: The George Washington University Medical Center.
- Smith, B. M., Maloy, K.A. & Hawkins, D.J. (Winter 2000). An examination of Medicare home health services. *The Journal of Long Term Home Health Care, Care Management Journals*, 2 (4), 238-247.
- Spector, W.D., Cohen, J.W. & Pesis-Katz, I. (2004). Home care before and after the Balanced Budget Act of 1997: Shifts in financing and services. *The Gerontologist*, 44(1), 39-47.

- Spector, W.D. & Fleishman, J.A. (1998). Combining activities of daily living with instrumental activities of daily living to measure functional disability. *Journal of Gerontology: Social Sciences*, 53B, S46-S57.
- Stein, J.A. (Fall 2000). Medicare home health coverage. *The Journal of Long Term Home Health Care, Care Management Journals*, 2(3), 178-189.
- Stein, I. (1974). *Systems theory, science and social work*. The Scarecrow Press, Inc.: Metuchen, N.J.
- Stephens, R., Blau, Z.S., Oser, G.T. & Millar, M.D. (1978). Aging, social support systems and social policy. *Journal of Gerontological Social Work* 1(1), 33-45.
- U.S. Census, (2000). Retrieved January 29, 2002 from <http://www.census.gov/main/www/cen2000.html>.
- U.S. Department of Health and Human Services. (2004). *Health care in America, trends in Utilization*. (DHHS Pub No. 2004-1031). Washington, DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services. (1995). *Long-term care: Current issues and future directions*. (GAO/HEHS-No. 95-109), Rockville, MD: U.S. General Accounting Office.
- Vincent, P.A. & Davis, J.M. (1987). Functions of social workers in a home health agency. *Health and Social Work*, 12, 213-219.
- Vladeck, B.C. (Winter 2000). The storm before the calm before the storm. *The Journal of Long Term Home Health Care, Care Management Journals*, 2(4), 232-237.
- Von Bertalanffy, Ludwig (1971). *General systems theory: Foundations. development, application*. Allen Lane: London.
- Whittaker, J.K. & Garbarino, J. (1983). *Social Support Networks: Informal Helping in the Human Services*. Hawthorne, NY: Aldine Publishing Company.
- Wolinsky, F., Callahan, C.M., Fidzgerald, J.F. and Johnson, R.J. (1992). The risk of nursing home placement and subsequent death among older adults. *Journal of Gerontology: Social Sciences*, 47, S173-S182.
- Wolinsky, F., Callahan, C.M., Fidzgerald, J.F. and Johnson, R.J. (1993). Changes in functional status and the risks of subsequent nursing home placement and death. *Journal of Gerontology: Social Sciences*, 48, S93-S101.

APPENDIX A

LSU INSTITUTIONAL REVIEW BOARD PROJECT REPORT AND CONTINUATION OF APPLICATION AND CONSENT FORM

LSU INSTITUTIONAL REVIEW BOARD

PROJECT REPORT AND CONTINUATION APPLICATION: Issue date 03/31/2006
(Complete and return to IRB, 117-B David Boyd Hall, within 30 days of issue date; direct questions to IRB Chairman Robert Mathews 578-8692.)

YOUR CURRENT APPROVAL EXPIRES ON 06/02/2006 Review type: E IRB# 2322

RISK FACTOR: Minimal

PI Timothy Page DEPT Social Work .Phone 8-1358

STUDENT/Co-INVESTIGATOR _____ DEPARTMENT _____ Ph _____

PROJECT TITLE An examination of the effect of social work intervention on home health care recipient outcomes

NUMBER OF SUBJECTS AUTHORIZED: 274

PROJECT FUNDED BY: _____ LSU proposal # _____

PROJECT STATUS: Check the appropriate blank(s); and complete the following:

- ___ 1. Active, subject enrollment continuing; # subjects enrolled: ___
- ___ 2. Active, subject enrollment complete; # subjects enrolled: ___
- ___ 3. Active, subject enrollment complete; work with subjects continues.
- ☒ 4. Active, work with subjects complete; data analysis in progress.
- ___ 5. Project start postponed
- ___ 6. Project complete; end date ___/___/___
- ___ 7. Project cancelled: no human subjects used.

PROTOCOL: (Check one): ☒ Protocol continues as previously approved
☐ Changes are requested*

* List (on separate sheet) any changes to approved protocol.

ADVERSE EVENTS: (possible study-related events affecting subjects):

State number of events since study inception: 0 since last report: 0

Have there been any previously unreported events? Y/N N ?

(if YES, attach report describing event and any corrective action).

CONSENT FORM AND RISK/BENEFIT RATIO:

Do new knowledge or adverse events change the risk/benefit ratio? Y/N N;

Is a corresponding change in the consent form needed? Y/N N/A

ATTACH A BRIEF, FACTUAL SUMMARY of project progress/results to show continued participation of subjects is justified; or to provide a final report on project findings.

ATTACH CURRENT CONSENT FORM (only if subject enrollment is continuing); and check the appropriate blank:

- ___ 1. Form is unchanged since last approved
- ___ 2. Approval of revision requested herewith: (identify changes)

Principal Investigator Timothy Page Date 4/13/06

IRB ACTION: ☒ Continuation approved; Approval Expires: 4/24/07
☐ Disapproved

Signed Robert Mathews Date 4/24/06

ST. LANDRY HOMECARE OPELOUSAS

St. Landry Homecare promotes research in the healthcare industry. We have currently agreed to provide information to researchers with Louisiana State University who are investigating how psychosocial factors and social work intervention effect healthcare outcomes. Dr. Timothy Dyeson and Corie Watkins will be reviewing some of the agency's records containing patient demographic information and OASIS assessments to gather information for the study.

The study to be conducted is titled: An Examination of the Effects of Social Work Intervention on the Outcomes of Home Health Care Recipients. Your medical records will be reviewed along with others who have received home health services since 2000, to see if those who received social work services as part of their treatment had different outcomes than those who did not see a social worker. You are not being asked to do anything for this study; the researchers are required to obtain your consent before viewing any medical records.

The information obtained from your medical records will be kept confidential and will pose minimal risk to you. The risks include the viewing of personal information about your medical condition. All steps will be taken to handle the medical records so that the information gained will not reflect any personal information that could identify you. The information will only be used for research and will be kept confidential unless its release is legally compelled.

Health Insurance Portability and Accountability Act (HIPPA) – Records that you give us permission to keep, and that identify you, will be kept confidential as required by law. Federal Privacy Regulations provide safeguards for privacy, security, and authorized access. Except when required by law, you will not be identified by name, social security number, address, telephone number or any other direct personal identifier in screening records disclosed outside of LSU. For records disclosed outside of LSU, you will be assigned a unique code number.

This research study will end by May 2004. If you agree to sign this authorization, you have the right to withdraw from the study and revoke this authorization at any time. Your decision regarding whether or not to participate in the study, will not affect our treatment of you or your health care benefits in any way. The information the agency discloses based on this authorization may be redisclosed by the recipient, and we cannot control this redisclosure.

I give permission to St. Landry Homecare to disclose my medical record information to Dr. Tim Dyeson and Corie Watkins for the purpose of this research study.

Patient Signature _____

If other than patient signing, print name _____

Relationship to patient _____

Signature _____

Member
LOUISIANA
HEALTH CARE GROUP



Home Care · Physical Rehabilitation · Physical Therapy · Diabetes Self Management · Hospice
1370 South Union Street · Opelousas, Louisiana 70570 · 318-948-8988 · Fax 318-948-0177

APPENDIX B

OUTCOME AND ASSESSMENT INFORMATION SET (OASIS B1)

Outcome and Assessment Information Set (OASIS-B1)

Items to be Used at Specific Time Points

<u>Start of Care</u> -----	Home Health Patient Tracking Sheet, M0080-M0825
Start of care—further visits planned	
<u>Resumption of Care</u> -----	M0080-M0825
Resumption of care (after inpatient stay)	
<u>Follow-Up</u> -----	M0080-M0100, M0175, M0230-M0250, M0390, M0420, M0440, M0450, M0460, M0476, M0488, M0490, M0530-M0550, M0610, M0650-M0700, M0825
Recertification (follow-up) assessment	
Other follow-up assessment	
<u>Transfer to an Inpatient Facility</u> -----	M0080-M0100, M0830-M0855, M0890-M0906
Transferred to an inpatient facility—patient not discharged from an agency	
Transferred to an inpatient facility—patient discharged from agency	
<u>Discharge from Agency — Not to an Inpatient Facility</u>	
Death at home -----	M0080-M0100, M0906
Discharge from agency-----	M0080-M0100, M0200-M0220, M0250, M0280-M0380, M0410-M0820, M0830-M0880, M0903-M0906

Note: For items M0640-M0800, please note special instructions at the beginning of the section.

CLINICAL RECORD ITEMS

(M0080) Discipline of Person Completing Assessment:

☐ 1-RN ☐ 2-PT ☐ 3-SLP/ST ☐ 4-OT

(M0090) Date Assessment Completed: ____/____/____
month day year

(M0100) This Assessment is Currently Being Completed for the Following Reason:

Start/Resumption of Care

- ☐ 1 – Start of care—further visits planned
☐ 3 – Resumption of care (after inpatient stay)

Follow-Up

- ☐ 4 – Recertification (follow-up) reassessment [Go to M0175]
☐ 5 – Other follow-up [Go to M0175]

Transfer to an Inpatient Facility

- ☐ 6 – Transferred to an inpatient facility—patient not discharged from agency [Go to M0830]
☐ 7 – Transferred to an inpatient facility—patient discharged from agency [Go to M0830]

Discharge from Agency — Not to an Inpatient Facility

- ☐ 8 – Death at home [Go to M0906]
☐ 9 – Discharge from agency [Go to M0200]

DEMOGRAPHICS AND PATIENT HISTORY

(M0175) From which of the following **Inpatient Facilities** was the patient discharged during the past 14 days? (Mark all that apply.)

- ☐ 1 - Hospital
- ☐ 2 - Rehabilitation facility
- ☐ 3 - Skilled nursing facility
- ☐ 4 - Other nursing home
- ☐ 5 - Other (specify) _____
- ☐ NA - Patient was not discharged from an inpatient facility [If NA at SOC/ROC, go to **M0200**;
If NA at Follow-Up, go to **M0230**]

(M0180) **Inpatient Discharge Date** (most recent):

____/____/____
month day year

- ☐ UK - Unknown

(M0190) **Inpatient Diagnoses** and ICD-9-CM code categories (three digits required; five digits optional) for only those conditions treated during an inpatient facility stay within the last 14 days (no surgical or V-codes):

	<u>Inpatient Facility Diagnosis</u>	<u>ICD-9-CM</u>
a.	_____	(____.____)
b.	_____	(____.____)

Effective 10/1/2003

List each Inpatient Diagnosis and ICD-9-CM code at the level of highest specificity for only those conditions treated during an inpatient stay within the last 14 days (no surgical, E-codes, or V-codes):

	<u>Inpatient Facility Diagnosis</u>	<u>ICD-9-CM</u>
a.	_____	(____.____)
b.	_____	(____.____)

(M0200) **Medical or Treatment Regimen Change Within Past 14 Days:** Has this patient experienced a change in medical or treatment regimen (e.g., medication, treatment, or service change due to new or additional diagnosis, etc.) within the last 14 days?

- ☐ 0 - No [If No, go to **M0220**]
- ☐ 1 - Yes

(M0210) List the patient's **Medical Diagnoses** and ICD-9-CM code categories (three digits required; five digits optional) for those conditions requiring changed medical or treatment regimen (no surgical or V-codes):

	<u>Changed Medical Regimen Diagnosis</u>	<u>ICD-9-CM</u>
a.	_____	(____.____)
b.	_____	(____.____)
c.	_____	(____.____)
d.	_____	(____.____)

Effective 10/1/2003

List the patient's Medical Diagnoses and ICD-9-CM codes at the level of highest specificity for those conditions requiring changed medical or treatment regimen (no surgical, E-codes, or V-codes):

<u>Changed Medical Regimen Diagnosis</u>	<u>ICD-9-CM</u>
a. _____	(____ . ____)
b. _____	(____ . ____)
c. _____	(____ . ____)
d. _____	(____ . ____)

(M0220) Conditions Prior to Medical or Treatment Regimen Change or Inpatient Stay Within Past 14

Days: If this patient experienced an inpatient facility discharge or change in medical or treatment regimen within the past 14 days, indicate any conditions which existed prior to the inpatient stay or change in medical or treatment regimen. **(Mark all that apply.)**

- ☐ 1 - Urinary incontinence
- ☐ 2 - Indwelling/suprapubic catheter
- ☐ 3 - Intractable pain
- ☐ 4 - Impaired decision-making
- ☐ 5 - Disruptive or socially inappropriate behavior
- ☐ 6 - Memory loss to the extent that supervision required
- ☐ 7 - None of the above
- ☐ NA - No inpatient facility discharge and no change in medical or treatment regimen in past 14 days
- ☐ UK - Unknown

(M0230/M0240) Diagnoses and Severity Index: List each medical diagnosis or problem for which the patient is receiving home care and ICD-9-CM code category (three digits required; five digits optional – no surgical or V-codes) and rate them using the following severity index. (Choose one value that represents the most severe rating appropriate for each diagnosis.) ICD-9-CM sequencing requirements must be followed if multiple coding is indicated for any diagnoses.

Effective 10/1/2003

List each diagnosis and ICD-9-CM code at the level of highest specificity (no surgical codes) for which the patient is receiving home care. Rate each condition using the following severity index. (Choose one value that represents the most severe rating appropriate for each diagnosis.) E-codes (for M0240 only) or V-codes (for M0230 or M0240) may be used. ICD-9-CM sequencing requirements must be followed if multiple coding is indicated for any diagnoses. If a V-code is reported in place of a case mix diagnosis, then M0245 Payment Diagnosis should be completed. Case mix diagnosis is a primary or first secondary diagnosis that determines the Medicare PPS case mix group.

Severity Rating

- 0 - Asymptomatic, no treatment needed at this time
- 1 - Symptoms well controlled with current therapy
- 2 - Symptoms controlled with difficulty, affecting daily functioning; patient needs ongoing monitoring
- 3 - Symptoms poorly controlled, patient needs frequent adjustment in treatment and dose monitoring
- 4 - Symptoms poorly controlled, history of rehospitalizations

<u>(M0230) Primary Diagnosis</u>	<u>ICD-9-CM</u>	<u>Severity Rating</u>			
a. _____	(____ . ____)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
				<input type="checkbox"/> 4	
<u>(M0240) Other Diagnoses</u>	<u>ICD-9-CM</u>	<u>Severity Rating</u>			
b. _____	(<input type="checkbox"/> ____ . ____)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
				<input type="checkbox"/> 4	
c. _____	(<input type="checkbox"/> ____ . ____)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
				<input type="checkbox"/> 4	
d. _____	(<input type="checkbox"/> ____ . ____)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
				<input type="checkbox"/> 4	
e. _____	(<input type="checkbox"/> ____ . ____)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
				<input type="checkbox"/> 4	
f. _____	(<input type="checkbox"/> ____ . ____)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
				<input type="checkbox"/> 4	

Effective 10/1/2003

(M0245) Payment Diagnosis (optional): If a V-code was reported in M0230 in place of a case mix diagnosis, list the primary diagnosis and ICD-9-CM code, determined in accordance with OASIS requirements in effect before October 1, 2003--no V-codes, E-codes, or surgical codes allowed. ICD-9-CM sequencing requirements must be followed. Complete both lines (a) and (b) if the case mix diagnosis is a manifestation code or in other situations where multiple coding is indicated for the primary diagnosis; otherwise, complete line (a) only.

<u>(M0245) Primary Diagnosis</u>	<u>ICD-9-CM</u>
a. _____	(____ . ____)
<u>(M0245) First Secondary Diagnosis</u>	<u>ICD-9-CM</u>
b. _____	(____ . ____)

(M0250) Therapies the patient receives at home: **(Mark all that apply.)**

- ☐ 1 - Intravenous or infusion therapy (excludes TPN)
- ☐ 2 - Parenteral nutrition (TPN or lipids)
- ☐ 3 - Enteral nutrition (nasogastric, gastrostomy, jejunostomy, or any other artificial entry into the alimentary canal)
- ☐ 4 - None of the above

(M0260) Overall Prognosis: BEST description of patient's overall prognosis for recovery from this episode of illness.

- ☐ 0 - Poor: little or no recovery is expected and/or further decline is imminent
- ☐ 1 - Good/Fair: partial to full recovery is expected
- ☐ UK - Unknown

(M0270) Rehabilitative Prognosis: BEST description of patient's prognosis for functional status.

- ☐ 0 - Guarded: minimal improvement in functional status is expected; decline is possible
- ☐ 1 - Good: marked improvement in functional status is expected
- ☐ UK - Unknown

(M0280) Life Expectancy: (Physician documentation is not required.)

- ☐ 0 - Life expectancy is greater than 6 months
- ☐ 1 - Life expectancy is 6 months or fewer

(M0290) High Risk Factors characterizing this patient: **(Mark all that apply.)**

- ☐ 1 - Heavy smoking
- ☐ 2 - Obesity
- ☐ 3 - Alcohol dependency
- ☐ 4 - Drug dependency
- ☐ 5 - None of the above
- ☐ UK - Unknown

LIVING ARRANGEMENTS

(M0300) Current Residence:

- ☐ 1 - Patient's owned or rented residence (house, apartment, or mobile home owned or rented by patient/couple/significant other)
- ☐ 2 - Family member's residence
- ☐ 3 - Boarding home or rented room
- ☐ 4 - Board and care or assisted living facility
- ☐ 5 - Other (specify) _____

(M0340) Patient Lives With: **(Mark all that apply.)**

- ☐ 1 - Lives alone
- ☐ 2 - With spouse or significant other
- ☐ 3 - With other family member
- ☐ 4 - With a friend
- ☐ 5 - With paid help (other than home care agency staff)
- ☐ 6 - With other than above

SUPPORTIVE ASSISTANCE

(M0350) Assisting Person(s) Other than Home Care Agency Staff: (Mark all that apply.)

- ☐ 1 - Relatives, friends, or neighbors living outside the home
- ☐ 2 - Person residing in the home (EXCLUDING paid help)
- ☐ 3 - Paid help
- ☐ 4 - None of the above [If None of the above, go to **M0390**]
- ☐ UK - Unknown [If Unknown, go to **M0390**]

(M0360) Primary Caregiver taking lead responsibility for providing or managing the patient's care, providing the most frequent assistance, etc. (other than home care agency staff):

- ☐ 0 - No one person [If No one person, go to **M0390**]
- ☐ 1 - Spouse or significant other
- ☐ 2 - Daughter or son
- ☐ 3 - Other family member
- ☐ 4 - Friend or neighbor or community or church member
- ☐ 5 - Paid help
- ☐ UK - Unknown [If Unknown, go to **M0390**]

(M0370) How Often does the patient receive assistance from the primary caregiver?

- ☐ 1 - Several times during day and night
- ☐ 2 - Several times during day
- ☐ 3 - Once daily
- ☐ 4 - Three or more times per week
- ☐ 5 - One to two times per week
- ☐ 6 - Less often than weekly
- ☐ UK - Unknown

(M0380) Type of Primary Caregiver Assistance: (Mark all that apply.)

- ☐ 1 - ADL assistance (e.g., bathing, dressing, toileting, bowel/bladder, eating/feeding)
- ☐ 2 - IADL assistance (e.g., meds, meals, housekeeping, laundry, telephone, shopping, finances)
- ☐ 3 - Environmental support (housing, home maintenance)
- ☐ 4 - Psychosocial support (socialization, companionship, recreation)
- ☐ 5 - Advocates or facilitates patient's participation in appropriate medical care
- ☐ 6 - Financial agent, power of attorney, or conservator of finance
- ☐ 7 - Health care agent, conservator of person, or medical power of attorney
- ☐ UK - Unknown

SENSORY STATUS

(M0390) Vision with corrective lenses if the patient usually wears them:

- ☐ 0 - Normal vision: sees adequately in most situations; can see medication labels, newsprint.
- ☐ 1 - Partially impaired: cannot see medication labels or newsprint, but can see obstacles in path, and the surrounding layout; can count fingers at arm's length.
- ☐ 2 - Severely impaired: cannot locate objects without hearing or touching them or patient nonresponsive.

(M0400) Hearing and Ability to Understand Spoken Language in patient's own language (with hearing aids if the patient usually uses them):

- ☐ 0 - No observable impairment. Able to hear and understand complex or detailed instructions and extended or abstract conversation.
- ☐ 1 - With minimal difficulty, able to hear and understand most multi-step instructions and ordinary conversation. May need occasional repetition, extra time, or louder voice.
- ☐ 2 - Has moderate difficulty hearing and understanding simple, one-step instructions and brief conversation; needs frequent prompting or assistance.
- ☐ 3 - Has severe difficulty hearing and understanding simple greetings and short comments. Requires multiple repetitions, restatements, demonstrations, additional time.
- ☐ 4 - Unable to hear and understand familiar words or common expressions consistently, or patient nonresponsive.

(M0410) Speech and Oral (Verbal) Expression of Language (in patient's own language):

- ☐ 0 - Expresses complex ideas, feelings, and needs clearly, completely, and easily in all situations with no observable impairment.
- ☐ 1 - Minimal difficulty in expressing ideas and needs (may take extra time; makes occasional errors in word choice, grammar or speech intelligibility; needs minimal prompting or assistance).
- ☐ 2 - Expresses simple ideas or needs with moderate difficulty (needs prompting or assistance, errors in word choice, organization or speech intelligibility). Speaks in phrases or short sentences.
- ☐ 3 - Has severe difficulty expressing basic ideas or needs and requires maximal assistance or guessing by listener. Speech limited to single words or short phrases.
- ☐ 4 - Unable to express basic needs even with maximal prompting or assistance but is not comatose or unresponsive (e.g., speech is nonsensical or unintelligible).
- ☐ 5 - Patient nonresponsive or unable to speak.

(M0420) Frequency of Pain interfering with patient's activity or movement:

- ☐ 0 - Patient has no pain or pain does not interfere with activity or movement
- ☐ 1 - Less often than daily
- ☐ 2 - Daily, but not constantly
- ☐ 3 - All of the time

(M0430) Intractable Pain: Is the patient experiencing pain that is not easily relieved, occurs at least daily, and affects the patient's sleep, appetite, physical or emotional energy, concentration, personal relationships, emotions, or ability or desire to perform physical activity?

- ☐ 0 - No
- ☐ 1 - Yes

INTEGUMENTARY STATUS

(M0440) Does this patient have a **Skin Lesion** or an **Open Wound**? This excludes "OSTOMIES."

- ☐ 0 - No [If No, go to **M0490**]
- ☐ 1 - Yes

(M0445) Does this patient have a **Pressure Ulcer**?

- ☐ 0 - No [If No, go to **M0468**]
- ☐ 1 - Yes

(M0450) Current Number of Pressure Ulcers at Each Stage: (Circle one response for each stage.)

Pressure Ulcer Stages		Number of Pressure Ulcers				
a)	Stage 1: Nonblanchable erythema of intact skin; the heralding of skin ulceration. In darker-pigmented skin, warmth, edema, hardness, or discolored skin may be indicators.	0	1	2	3	4 or more
b)	Stage 2: Partial thickness skin loss involving epidermis and/or dermis. The ulcer is superficial and presents clinically as an abrasion, blister, or shallow crater.	0	1	2	3	4 or more
c)	Stage 3: Full-thickness skin loss involving damage or necrosis of subcutaneous tissue which may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.	0	1	2	3	4 or more
d)	Stage 4: Full-thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures (e.g., tendon, joint capsule, etc.)	0	1	2	3	4 or more
e)	In addition to the above, is there at least one pressure ulcer that cannot be observed due to the presence of eschar or a nonremovable dressing, including casts? <input type="checkbox"/> 0 - No <input type="checkbox"/> 1 - Yes					

(M0460) [At follow-up, skip this item if patient has no pressure ulcers] **Stage of Most Problematic (Observable) Pressure Ulcer:**

- ☐ 1 - Stage 1
- ☐ 2 - Stage 2
- ☐ 3 - Stage 3
- ☐ 4 - Stage 4
- ☐ NA - No observable pressure ulcer

(M0464) Status of Most Problematic (Observable) Pressure Ulcer:

- ☐ 1 - Fully granulating
- ☐ 2 - Early/partial granulation
- ☐ 3 - Not healing
- ☐ NA - No observable pressure ulcer

(M0468) Does this patient have a **Stasis Ulcer**?

- ☐ 0 - No [If No, go to **M0482**]
- ☐ 1 - Yes

(M0470) Current Number of Observable Stasis Ulcer(s):

- ☐ 0 - Zero
- ☐ 1 - One
- ☐ 2 - Two
- ☐ 3 - Three
- ☐ 4 - Four or more

(M0474) Does this patient have at least one **Stasis Ulcer that Cannot be Observed** due to the presence of a nonremovable dressing?

- ☐ 0 - No
- ☐ 1 - Yes

(M0476) [At follow-up, skip this item if patient has no stasis ulcers] **Status of Most Problematic (Observable) Stasis Ulcer:**

- ☐ 1 - Fully granulating
- ☐ 2 - Early/partial granulation
- ☐ 3 - Not healing
- ☐ NA - No observable stasis ulcer

(M0482) Does this patient have a **Surgical Wound**?

- ☐ 0 - No [If No, go to **M0490**]
- ☐ 1 - Yes

(M0484) **Current Number of (Observable) Surgical Wounds:** (If a wound is partially closed but has more than one opening, consider each opening as a separate wound.)

- ☐ 0 - Zero
- ☐ 1 - One
- ☐ 2 - Two
- ☐ 3 - Three
- ☐ 4 - Four or more

(M0486) Does this patient have at least one **Surgical Wound that Cannot be Observed** due to the presence of a nonremovable dressing?

- ☐ 0 - No
- ☐ 1 - Yes

(M0488) [At follow-up, skip this item if patient has no surgical wounds] **Status of Most Problematic (Observable) Surgical Wound:**

- ☐ 1 - Fully granulating
- ☐ 2 - Early/partial granulation
- ☐ 3 - Not healing
- ☐ NA - No observable surgical wound

RESPIRATORY STATUS

(M0490) When is the patient dyspneic or noticeably **Short of Breath**?

- ☐ 0 - Never, patient is not short of breath
- ☐ 1 - When walking more than 20 feet, climbing stairs
- ☐ 2 - With moderate exertion (e.g., while dressing, using commode or bedpan, walking distances less than 20 feet)
- ☐ 3 - With minimal exertion (e.g., while eating, talking, or performing other ADLs) or with agitation
- ☐ 4 - At rest (during day or night)

(M0500) **Respiratory Treatments** utilized at home: **(Mark all that apply.)**

- ☐ 1 - Oxygen (intermittent or continuous)
- ☐ 2 - Ventilator (continually or at night)
- ☐ 3 - Continuous positive airway pressure
- ☐ 4 - None of the above

ELIMINATION STATUS

(M0510) Has this patient been treated for a **Urinary Tract Infection** in the past 14 days?

- ☐ 0 - No
- ☐ 1 - Yes
- ☐ NA - Patient on prophylactic treatment
- ☐ UK - Unknown

(M0520) Urinary Incontinence or Urinary Catheter Presence:

- ☐ 0 - No incontinence or catheter (includes anuria or ostomy for urinary drainage) [If No, go to M0540]
- ☐ 1 - Patient is incontinent
- ☐ 2 - Patient requires a urinary catheter (i.e., external, indwelling, intermittent, suprapubic) [Go to M0540]

(M0530) [At follow-up, skip this item if patient has no urinary incontinence or does have a urinary catheter]
When does Urinary Incontinence occur?

- ☐ 0 - Timed-voiding defers incontinence
- ☐ 1 - During the night only
- ☐ 2 - During the day and night

(M0540) Bowel Incontinence Frequency:

- ☐ 0 - Very rarely or never has bowel incontinence
- ☐ 1 - Less than once weekly
- ☐ 2 - One to three times weekly
- ☐ 3 - Four to six times weekly
- ☐ 4 - On a daily basis
- ☐ 5 - More often than once daily
- ☐ NA - Patient has ostomy for bowel elimination
- ☐ UK - Unknown

(M0550) Ostomy for Bowel Elimination: Does this patient have an ostomy for bowel elimination that (within the last 14 days): a) was related to an inpatient facility stay, or b) necessitated a change in medical or treatment regimen?

- ☐ 0 - Patient does not have an ostomy for bowel elimination.
- ☐ 1 - Patient's ostomy was not related to an inpatient stay and did not necessitate change in medical or treatment regimen.
- ☐ 2 - The ostomy was related to an inpatient stay or did necessitate change in medical or treatment regimen.

NEURO/EMOTIONAL/BEHAVIORAL STATUS

(M0560) Cognitive Functioning: (Patient's current level of alertness, orientation, comprehension, concentration, and immediate memory for simple commands.)

- ☐ 0 - Alert/oriented, able to focus and shift attention, comprehends and recalls task directions independently.
- ☐ 1 - Requires prompting (cuing, repetition, reminders) only under stressful or unfamiliar conditions.
- ☐ 2 - Requires assistance and some direction in specific situations (e.g., on all tasks involving shifting of attention), or consistently requires low stimulus environment due to distractibility.
- ☐ 3 - Requires considerable assistance in routine situations. Is not alert and oriented or is unable to shift attention and recall directions more than half the time.
- ☐ 4 - Totally dependent due to disturbances such as constant disorientation, coma, persistent vegetative state, or delirium.

(M0570) When Confused (Reported or Observed):

- ☐ 0 - Never
- ☐ 1 - In new or complex situations only
- ☐ 2 - On awakening or at night only
- ☐ 3 - During the day and evening, but not constantly
- ☐ 4 - Constantly
- ☐ NA - Patient nonresponsive

(M0580) When Anxious (Reported or Observed):

- ☐ 0 - None of the time
- ☐ 1 - Less often than daily
- ☐ 2 - Daily, but not constantly
- ☐ 3 - All of the time
- ☐ NA - Patient nonresponsive

(M0590) Depressive Feelings Reported or Observed in Patient: (Mark all that apply.)

- ☐ 1 - Depressed mood (e.g., feeling sad, tearful)
- ☐ 2 - Sense of failure or self reproach
- ☐ 3 - Hopelessness
- ☐ 4 - Recurrent thoughts of death
- ☐ 5 - Thoughts of suicide
- ☐ 6 - None of the above feelings observed or reported

(M0610) Behaviors Demonstrated at Least Once a Week (Reported or Observed): (Mark all that apply.)

- ☐ 1 - Memory deficit: failure to recognize familiar persons/places, inability to recall events of past 24 hours, significant memory loss so that supervision is required
- ☐ 2 - Impaired decision-making: failure to perform usual ADLs or IADLs, inability to appropriately stop activities, jeopardizes safety through actions
- ☐ 3 - Verbal disruption: yelling, threatening, excessive profanity, sexual references, etc.
- ☐ 4 - Physical aggression: aggressive or combative to self and others (e.g., hits self, throws objects, punches, dangerous maneuvers with wheelchair or other objects)
- ☐ 5 - Disruptive, infantile, or socially inappropriate behavior (**excludes** verbal actions)
- ☐ 6 - Delusional, hallucinatory, or paranoid behavior
- ☐ 7 - None of the above behaviors demonstrated

(M0620) Frequency of Behavior Problems (Reported or Observed) (e.g., wandering episodes, self abuse, verbal disruption, physical aggression, etc.):

- ☐ 0 - Never
- ☐ 1 - Less than once a month
- ☐ 2 - Once a month
- ☐ 3 - Several times each month
- ☐ 4 - Several times a week
- ☐ 5 - At least daily

(M0630) Is this patient receiving **Psychiatric Nursing Services at home provided by a qualified psychiatric nurse?**

- ☐ 0 - No
- ☐ 1 - Yes

ADL/IADLs

For M0640-M0800, complete the "Current" column for all patients. For these same items, complete the "Prior" column only at start of care and at resumption of care; mark the level that corresponds to the patient's condition 14 days prior to start of care date (M0030) or resumption of care date (M0032). In all cases, record what the patient is able to do.

(M0640) Grooming: Ability to tend to personal hygiene needs (i.e., washing face and hands, hair care, shaving or make up, teeth or denture care, fingernail care).

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to groom self unaided, with or without the use of assistive devices or adapted methods.
<input type="checkbox"/>	<input type="checkbox"/>	1 - Grooming utensils must be placed within reach before able to complete grooming activities.
<input type="checkbox"/>	<input type="checkbox"/>	2 - Someone must assist the patient to groom self.
<input type="checkbox"/>	<input type="checkbox"/>	3 - Patient depends entirely upon someone else for grooming needs.
<input type="checkbox"/>		UK - Unknown

(M0650) Ability to Dress Upper Body (with or without dressing aids) including undergarments, pullovers, front-opening shirts and blouses, managing zippers, buttons, and snaps:

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to get clothes out of closets and drawers, put them on and remove them from the upper body without assistance.
<input type="checkbox"/>	<input type="checkbox"/>	1 - Able to dress upper body without assistance if clothing is laid out or handed to the patient.
<input type="checkbox"/>	<input type="checkbox"/>	2 - Someone must help the patient put on upper body clothing.
<input type="checkbox"/>	<input type="checkbox"/>	3 - Patient depends entirely upon another person to dress the upper body.
<input type="checkbox"/>		UK - Unknown

(M0660) Ability to Dress Lower Body (with or without dressing aids) including undergarments, slacks, socks or nylons, shoes:

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to obtain, put on, and remove clothing and shoes without assistance.
<input type="checkbox"/>	<input type="checkbox"/>	1 - Able to dress lower body without assistance if clothing and shoes are laid out or handed to the patient.
<input type="checkbox"/>	<input type="checkbox"/>	2 - Someone must help the patient put on undergarments, slacks, socks or nylons, and shoes.
<input type="checkbox"/>	<input type="checkbox"/>	3 - Patient depends entirely upon another person to dress lower body.
<input type="checkbox"/>		UK - Unknown

(M0670) Bathing: Ability to wash entire body. **Excludes grooming (washing face and hands only).**

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to bathe self in <u>shower or tub</u> independently.
<input type="checkbox"/>	<input type="checkbox"/>	1 - With the use of devices, is able to bathe self in shower or tub independently.
<input type="checkbox"/>	<input type="checkbox"/>	2 - Able to bathe in shower or tub with the assistance of another person: (a) for intermittent supervision or encouragement or reminders, <u>OR</u> (b) to get in and out of the shower or tub, <u>OR</u> (c) for washing difficult to reach areas.
<input type="checkbox"/>	<input type="checkbox"/>	3 - Participates in bathing self in shower or tub, <u>but</u> requires presence of another person throughout the bath for assistance or supervision.
<input type="checkbox"/>	<input type="checkbox"/>	4 - <u>Unable</u> to use the shower or tub and is bathed in <u>bed or bedside chair</u> .
<input type="checkbox"/>	<input type="checkbox"/>	5 - Unable to effectively participate in bathing and is totally bathed by another person.
<input type="checkbox"/>		UK - Unknown

(M0680) Toileting: Ability to get to and from the toilet or bedside commode.

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to get to and from the toilet independently with or without a device.
<input type="checkbox"/>	<input type="checkbox"/>	1 - When reminded, assisted, or supervised by another person, able to get to and from the toilet.
<input type="checkbox"/>	<input type="checkbox"/>	2 - <u>Unable</u> to get to and from the toilet but is able to use a bedside commode (with or without assistance).
<input type="checkbox"/>	<input type="checkbox"/>	3 - <u>Unable</u> to get to and from the toilet or bedside commode but is able to use a bedpan/urinal independently.
<input type="checkbox"/>	<input type="checkbox"/>	4 - Is totally dependent in toileting.
<input type="checkbox"/>		UK - Unknown

(M0690) Transferring: Ability to move from bed to chair, on and off toilet or commode, into and out of tub or shower, and ability to turn and position self in bed if patient is bedfast.

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to independently transfer.
<input type="checkbox"/>	<input type="checkbox"/>	1 - Transfers with minimal human assistance or with use of an assistive device.
<input type="checkbox"/>	<input type="checkbox"/>	2 - <u>Unable</u> to transfer self but is able to bear weight and pivot during the transfer process.
<input type="checkbox"/>	<input type="checkbox"/>	3 - Unable to transfer self and is <u>unable</u> to bear weight or pivot when transferred by another person.
<input type="checkbox"/>	<input type="checkbox"/>	4 - Bedfast, unable to transfer but is able to turn and position self in bed.
<input type="checkbox"/>	<input type="checkbox"/>	5 - Bedfast, unable to transfer and is <u>unable</u> to turn and position self.
<input type="checkbox"/>		UK - Unknown

(M0700) Ambulation/Locomotion: Ability to SAFELY walk, once in a standing position, or use a wheelchair, once in a seated position, on a variety of surfaces.

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to independently walk on even and uneven surfaces and climb stairs with or without railings (i.e., needs no human assistance or assistive device).
<input type="checkbox"/>	<input type="checkbox"/>	1 - Requires use of a device (e.g., cane, walker) to walk alone <u>or</u> requires human supervision or assistance to negotiate stairs or steps or uneven surfaces.
<input type="checkbox"/>	<input type="checkbox"/>	2 - Able to walk only with the supervision or assistance of another person at all times.
<input type="checkbox"/>	<input type="checkbox"/>	3 - Chairfast, <u>unable</u> to ambulate but is able to wheel self independently.
<input type="checkbox"/>	<input type="checkbox"/>	4 - Chairfast, unable to ambulate and is <u>unable</u> to wheel self.
<input type="checkbox"/>	<input type="checkbox"/>	5 - Bedfast, unable to ambulate or be up in a chair.
<input type="checkbox"/>		UK - Unknown

(M0710) Feeding or Eating: Ability to feed self meals and snacks. **Note: This refers only to the process of eating, chewing, and swallowing, not preparing the food to be eaten.**

Prior	Current	
<input type="checkbox"/>	<input type="checkbox"/>	0 - Able to independently feed self.
<input type="checkbox"/>	<input type="checkbox"/>	1 - Able to feed self independently but requires: (a) meal set-up; <u>OR</u> (b) intermittent assistance or supervision from another person; <u>OR</u> (c) a liquid, pureed or ground meat diet.
<input type="checkbox"/>	<input type="checkbox"/>	2 - <u>Unable</u> to feed self and must be assisted or supervised throughout the meal/snack.
<input type="checkbox"/>	<input type="checkbox"/>	3 - Able to take in nutrients orally <u>and</u> receives supplemental nutrients through a nasogastric tube or gastrostomy.
<input type="checkbox"/>	<input type="checkbox"/>	4 - <u>Unable</u> to take in nutrients orally and is fed nutrients through a nasogastric tube or gastrostomy.
<input type="checkbox"/>	<input type="checkbox"/>	5 - Unable to take in nutrients orally or by tube feeding.
<input type="checkbox"/>		UK - Unknown

(M0720) Planning and Preparing Light Meals (e.g., cereal, sandwich) or reheat delivered meals:

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | (a) Able to independently plan and prepare all light meals for self or reheat delivered meals; <u>OR</u>
(b) Is physically, cognitively, and mentally able to prepare light meals on a regular basis but has not routinely performed light meal preparation in the past (i.e., prior to this home care admission). |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | <u>Unable</u> to prepare light meals on a regular basis due to physical, cognitive, or mental limitations. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | Unable to prepare any light meals or reheat any delivered meals. |
| <input type="checkbox"/> | | UK | - | Unknown |

(M0730) Transportation: Physical and mental ability to safely use a car, taxi, or public transportation (bus, train, subway).

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | Able to independently drive a regular or adapted car; <u>OR</u> uses a regular or handicap-accessible public bus. |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to ride in a car only when driven by another person; <u>OR</u> able to use a bus or handicap van only when assisted or accompanied by another person. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | <u>Unable</u> to ride in a car, taxi, bus, or van, and requires transportation by ambulance. |
| <input type="checkbox"/> | | UK | - | Unknown |

(M0740) Laundry: Ability to do own laundry -- to carry laundry to and from washing machine, to use washer and dryer, to wash small items by hand.

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | (a) Able to independently take care of all laundry tasks; <u>OR</u>
(b) Physically, cognitively, and mentally able to do laundry and access facilities, <u>but</u> has not routinely performed laundry tasks in the past (i.e., prior to this home care admission). |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to do only light laundry, such as minor hand wash or light washer loads. Due to physical, cognitive, or mental limitations, needs assistance with heavy laundry such as carrying large loads of laundry. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | <u>Unable</u> to do any laundry due to physical limitation or needs continual supervision and assistance due to cognitive or mental limitation. |
| <input type="checkbox"/> | | UK | - | Unknown |

(M0750) Housekeeping: Ability to safely and effectively perform light housekeeping and heavier cleaning tasks.

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | (a) Able to independently perform all housekeeping tasks; <u>OR</u>
(b) Physically, cognitively, and mentally able to perform <u>all</u> housekeeping tasks but has not routinely participated in housekeeping tasks in the past (i.e., prior to this home care admission). |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to perform only <u>light</u> housekeeping (e.g., dusting, wiping kitchen counters) tasks independently. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | Able to perform housekeeping tasks with intermittent assistance or supervision from another person. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3 | - | <u>Unable</u> to consistently perform any housekeeping tasks unless assisted by another person throughout the process. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4 | - | Unable to effectively participate in any housekeeping tasks. |
| <input type="checkbox"/> | | UK | - | Unknown |

(M0760) Shopping: Ability to plan for, select, and purchase items in a store and to carry them home or arrange delivery.

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | (a) Able to plan for shopping needs and independently perform shopping tasks, including carrying packages; <u>OR</u>
(b) Physically, cognitively, and mentally able to take care of shopping, but has not done shopping in the past (i.e., prior to this home care admission). |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to go shopping, but needs some assistance:
(a) By self is able to do only light shopping and carry small packages, but needs someone to do occasional major shopping; <u>OR</u>
(b) <u>Unable</u> to go shopping alone, but can go with someone to assist. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | <u>Unable</u> to go shopping, but is able to identify items needed, place orders, and arrange home delivery. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3 | - | Needs someone to do all shopping and errands. |
| <input type="checkbox"/> | | UK | - | Unknown |

(M0770) Ability to Use Telephone: Ability to answer the phone, dial numbers, and effectively use the telephone to communicate.

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | Able to dial numbers and answer calls appropriately and as desired. |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to use a specially adapted telephone (i.e., large numbers on the dial, teletype phone for the deaf) and call essential numbers. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | Able to answer the telephone and carry on a normal conversation but has difficulty with placing calls. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3 | - | Able to answer the telephone only some of the time or is able to carry on only a limited conversation. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4 | - | <u>Unable</u> to answer the telephone at all but can listen if assisted with equipment. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5 | - | Totally unable to use the telephone. |
| <input type="checkbox"/> | <input type="checkbox"/> | NA | - | Patient does not have a telephone. |
| <input type="checkbox"/> | | UK | - | Unknown |

MEDICATIONS

(M0780) Management of Oral Medications: Patient's ability to prepare and take all prescribed oral medications reliably and safely, including administration of the correct dosage at the appropriate times/intervals. **Excludes injectable and IV medications. (NOTE: This refers to ability, not compliance or willingness.)**

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | Able to independently take the correct oral medication(s) and proper dosage(s) at the correct times. |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to take medication(s) at the correct times if:
(a) individual dosages are prepared in advance by another person; <u>OR</u>
(b) given daily reminders; <u>OR</u>
(c) someone develops a drug diary or chart. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | <u>Unable</u> to take medication unless administered by someone else. |
| <input type="checkbox"/> | <input type="checkbox"/> | NA | - | No oral medications prescribed. |
| <input type="checkbox"/> | | UK | - | Unknown |

(M0790) Management of Inhalant/Mist Medications: Patient's ability to prepare and take all prescribed inhalant/mist medications (nebulizers, metered dose devices) reliably and safely, including administration of the correct dosage at the appropriate times/intervals. **Excludes all other forms of medication (oral tablets, injectable and IV medications).**

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | Able to independently take the correct medication and proper dosage at the correct times. |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to take medication at the correct times if:
(a) individual dosages are prepared in advance by another person, <u>OR</u>
(b) given daily reminders. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | <u>Unable</u> to take medication unless administered by someone else. |
| <input type="checkbox"/> | <input type="checkbox"/> | NA | - | No inhalant/mist medications prescribed. |
| <input type="checkbox"/> | | UK | - | Unknown |

(M0800) Management of Injectable Medications: Patient's ability to prepare and take all prescribed injectable medications reliably and safely, including administration of correct dosage at the appropriate times/intervals. **Excludes IV medications.**

Prior Current

- | | | | | |
|--------------------------|--------------------------|----|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 0 | - | Able to independently take the correct medication and proper dosage at the correct times. |
| <input type="checkbox"/> | <input type="checkbox"/> | 1 | - | Able to take injectable medication at correct times if:
(a) individual syringes are prepared in advance by another person, <u>OR</u>
(b) given daily reminders. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2 | - | <u>Unable</u> to take injectable medications unless administered by someone else. |
| <input type="checkbox"/> | <input type="checkbox"/> | NA | - | No injectable medications prescribed. |
| <input type="checkbox"/> | | UK | - | Unknown |

EQUIPMENT MANAGEMENT

(M0810) Patient Management of Equipment (includes ONLY oxygen, IV/infusion therapy, enteral/parenteral nutrition equipment or supplies): Patient's ability to set up, monitor and change equipment reliably and safely, add appropriate fluids or medication, clean/store/dispose of equipment or supplies using proper technique. **(NOTE: This refers to ability, not compliance or willingness.)**

- | | | | |
|--------------------------|----|---|---|
| <input type="checkbox"/> | 0 | - | Patient manages all tasks related to equipment completely independently. |
| <input type="checkbox"/> | 1 | - | If someone else sets up equipment (i.e., fills portable oxygen tank, provides patient with prepared solutions), patient is able to manage all other aspects of equipment. |
| <input type="checkbox"/> | 2 | - | Patient requires considerable assistance from another person to manage equipment, but independently completes portions of the task. |
| <input type="checkbox"/> | 3 | - | Patient is only able to monitor equipment (e.g., liter flow, fluid in bag) and must call someone else to manage the equipment. |
| <input type="checkbox"/> | 4 | - | Patient is completely dependent on someone else to manage all equipment. |
| <input type="checkbox"/> | NA | - | No equipment of this type used in care [If NA, go to M0825] |

(M0820) Caregiver Management of Equipment (includes ONLY oxygen, IV/infusion equipment, enteral/parenteral nutrition, ventilator therapy equipment or supplies): Caregiver's ability to set up, monitor, and change equipment reliably and safely, add appropriate fluids or medication, clean/store/dispose of equipment or supplies using proper technique. **(NOTE: This refers to ability, not compliance or willingness.)**

- | | | | |
|--------------------------|----|---|---|
| <input type="checkbox"/> | 0 | - | Caregiver manages all tasks related to equipment completely independently. |
| <input type="checkbox"/> | 1 | - | If someone else sets up equipment, caregiver is able to manage all other aspects. |
| <input type="checkbox"/> | 2 | - | Caregiver requires considerable assistance from another person to manage equipment, but independently completes significant portions of task. |
| <input type="checkbox"/> | 3 | - | Caregiver is only able to complete small portions of task (e.g., administer nebulizer treatment, clean/store/dispose of equipment or supplies). |
| <input type="checkbox"/> | 4 | - | Caregiver is completely dependent on someone else to manage all equipment. |
| <input type="checkbox"/> | NA | - | No caregiver |
| <input type="checkbox"/> | UK | - | Unknown |

THERAPY NEED

(M0825) Therapy Need: Does the care plan of the Medicare payment period for which this assessment will define a case mix group indicate a need for therapy (physical, occupational, or speech therapy) that meets the threshold for a Medicare high-therapy case mix group?

- ☐ 0 - No
- ☐ 1 - Yes
- ☐ NA - Not applicable

EMERGENT CARE

(M0830) Emergent Care: Since the last time OASIS data were collected, has the patient utilized any of the following services for emergent care (other than home care agency services)? **(Mark all that apply.)**

- ☐ 0 - No emergent care services **[If no emergent care, go to M0855]**
- ☐ 1 - Hospital emergency room (includes 23-hour holding)
- ☐ 2 - Doctor's office emergency visit/house call
- ☐ 3 - Outpatient department/clinic emergency (includes urgicenter sites)
- ☐ UK - Unknown **[If UK, go to M0855]**

(M0840) Emergent Care Reason: For what reason(s) did the patient/family seek emergent care? **(Mark all that apply.)**

- ☐ 1 - Improper medication administration, medication side effects, toxicity, anaphylaxis
- ☐ 2 - Nausea, dehydration, malnutrition, constipation, impaction
- ☐ 3 - Injury caused by fall or accident at home
- ☐ 4 - Respiratory problems (e.g., shortness of breath, respiratory infection, tracheobronchial obstruction)
- ☐ 5 - Wound infection, deteriorating wound status, new lesion/ulcer
- ☐ 6 - Cardiac problems (e.g., fluid overload, exacerbation of CHF, chest pain)
- ☐ 7 - Hypo/Hyperglycemia, diabetes out of control
- ☐ 8 - GI bleeding, obstruction
- ☐ 9 - Other than above reasons
- ☐ UK - Reason unknown

DATA ITEMS COLLECTED AT INPATIENT FACILITY ADMISSION OR AGENCY DISCHARGE ONLY

(M0855) To which **Inpatient Facility** has the patient been admitted?

- ☐ 1 - Hospital **[Go to M0890]**
- ☐ 2 - Rehabilitation facility **[Go to M0903]**
- ☐ 3 - Nursing home **[Go to M0900]**
- ☐ 4 - Hospice **[Go to M0903]**
- ☐ NA - No inpatient facility admission

(M0870) Discharge Disposition: Where is the patient after discharge from your agency? **(Choose only one answer.)**

- ☐ 1 - Patient remained in the community (not in hospital, nursing home, or rehab facility)
- ☐ 2 - Patient transferred to a noninstitutional hospice **[Go to M0903]**
- ☐ 3 - Unknown because patient moved to a geographic location not served by this agency **[Go to M0903]**
- ☐ UK - Other unknown **[Go to M0903]**

(M0880) After discharge, does the patient receive health, personal, or support **Services or Assistance**?
(Mark all that apply.)

- ☐ 1 - No assistance or services received
- ☐ 2 - Yes, assistance or services provided by family or friends
- ☐ 3 - Yes, assistance or services provided by other community resources (e.g., meals-on-wheels, home health services, homemaker assistance, transportation assistance, assisted living, board and care)

Go to M0903

(M0890) If the patient was admitted to an acute care **Hospital**, for what **Reason** was he/she admitted?

- ☐ 1 - Hospitalization for emergent (unscheduled) care
- ☐ 2 - Hospitalization for urgent (scheduled within 24 hours of admission) care
- ☐ 3 - Hospitalization for elective (scheduled more than 24 hours before admission) care
- ☐ UK - Unknown

(M0895) Reason for Hospitalization: (Mark all that apply.)

- ☐ 1 - Improper medication administration, medication side effects, toxicity, anaphylaxis
- ☐ 2 - Injury caused by fall or accident at home
- ☐ 3 - Respiratory problems (SOB, infection, obstruction)
- ☐ 4 - Wound or tube site infection, deteriorating wound status, new lesion/ulcer
- ☐ 5 - Hypo/Hyperglycemia, diabetes out of control
- ☐ 6 - GI bleeding, obstruction
- ☐ 7 - Exacerbation of CHF, fluid overload, heart failure
- ☐ 8 - Myocardial infarction, stroke
- ☐ 9 - Chemotherapy
- ☐ 10 - Scheduled surgical procedure
- ☐ 11 - Urinary tract infection
- ☐ 12 - IV catheter-related infection
- ☐ 13 - Deep vein thrombosis, pulmonary embolus
- ☐ 14 - Uncontrolled pain
- ☐ 15 - Psychotic episode
- ☐ 16 - Other than above reasons

Go to M0903

(M0900) For what **Reason(s)** was the patient **Admitted** to a **Nursing Home**? **(Mark all that apply.)**

- ☐ 1 - Therapy services
- ☐ 2 - Respite care
- ☐ 3 - Hospice care
- ☐ 4 - Permanent placement
- ☐ 5 - Unsafe for care at home
- ☐ 6 - Other
- ☐ UK - Unknown

(M0903) Date of Last (Most Recent) Home Visit:

___/___/___
month day year

(M0906) Discharge/Transfer/Death Date: Enter the date of the discharge, transfer, or death (at home) of the patient.

___/___/___
month day year

APPENDIX C

PRIMARY DIAGNOSES CONTAINED IN THE DATA SET

Abdominal Aortic Aneurysm
Abnormal Mass unspecified
Acute Leukemia
Acute Lymphocytic Lung Cancer
Anxiety
Arthritis – 2
Arthropathy – 2
Arthropathy of the knees
Asperitic Pneumonia
Atrial Fibrillation
Benign Neoplasm of the Bowel
Brain Cancer with Metastasis
Breast Cancer
Bronchitis
CAD – Carotid Artery Disease – 2
Cardiac Dysrhythmias
Cardio Vascular Disease
Cellulitis of the left leg
Congestive Heart Failure - 5
Chronic Ischemic Heart Disease
Coagulopathy Defect – 2
Colon Cancer
Chronic Obstructive Pulmonary Disease
CVA
CVA with late effect
Decubitis
Deep Vein Thrombosis - 2
Degenerative Joint Disease
Depression
Diabetes
Diabetes Mellitus – 2
Diabetes uncontrolled
Dysphagia
Encephalopathy
Fractured Left Wrist
Fungal Infection of the Toe
Fractured Femur
Fractured Right Ankle
Fractured Wrist
Gastritis
GI Bleeding – 2
Hypertension
Insulin Dependent Diabetes
Laryngeal Cancer
Larynx Cancer
Lung Cancer
Major Depression
Multiple Sclerosis

Open Wound to the Knee/Leg
Open Wound on the Hand
Osteoarthritis
Osteomyelitis
Parkinson's disease
Peripheral Vascular Disease
Pneumonia
Pressure Ulcer
Protein – Calcium Malnutrition
New Prosthesis
Right Knee Prosthesis
Right Meniscus Tear
Trans Cerebral Ischemia
Renal Cancer
Organic Brain Syndrome
Scoliosis
Seizures
Shoulder dislocation
Syncope
Urinary Tract Infection

APPENDIX D

WORLD HEALTH ORGANIZATION INTERNATIONAL CLASSIFICATION OF
DISEASES

- I. Infectious and Parasitic Diseases
- II. Neoplasms
- III. Diseases of the Blood and Blood-forming Organs and Certain Disorders
- IV. Endocrine, Nutritional and Metabolic Diseases
- V. Mental and Behavioral Disorders
- VI. Diseases of the Nervous System
- VII. Diseases of the Eye and Adnexa
- VIII. Diseases of the Ear and Mastoid Process
- IX. Diseases of the Circulatory System
- X. Diseases of the Respiratory System
- XI. Diseases of the Digestive System
- XII. Diseases of the Skin and Subcutaneous Tissue
- XIII. Diseases of the Musculoskeletal System and Connective Tissue
- XIV. Diseases of the Genitourinary System
- XV. Pregnancy, Childbirth and the Puerperium
- XVI. Certain Conditions Originating in the Perinatal Period
- XVII. Congenital Malformations, Deformations and Chromosomal Abnormalities
- XVIII. Symptoms, Signs and Abnormal Clinical and Laboratory Findings, not elsewhere classified
- XIX. Injury, Poisoning

APPENDIX E

REASONS FOR THE SOCIAL WORK REFERRAL AS LISTED BY THE VISITING NURSE

Aid with community resources and discharge planning
 Alzheimer's diagnosis
 Assist with medications and community resources - 3
 Assist with medications - 5
 Assist with nursing home Medicaid application
 Assist with long range plans and community resources - 3
 Assist with medications and Medicaid application
 Assist with nursing home placement
 Assist with community resources and respite for wife - 2
 Community resource needs - 2
 Community resources to care for patient at home
 Concern for neglect if patient returns to his own home
 Conflict with daughter, needs long term care assistance
 Counseling and community resources
 Difficulty affording medications – 5
 Disabled care person, needs community resource assistance
 Evaluate home for supervision needs
 Grief counseling
 Grief over recent loss of wife
 Help with alternative living, lives alone and is illiterate
 Help with Medicaid and long term care
 Help with transportation
 Home cluttered, unsafe home environment
 Home safety needs and assistance with medications
 In-home assistance, patient recently discharged from the nursing home
 Needs information on nursing home placement for the future
 Limited support
 Lives alone, needs assistance with medications and medical equipment
 Lives alone, blind, little social support
 Lives alone, illiterate, poor support system
 Lives alone, unsafe home environment and needs financial assistance
 Lives in rundown trailer, needs community resource assistance
 Lives alone, has community resource needs
 Physician fears patient will suffer neglect upon returning to his own home
 Physician said patient needs 24 hour care
 Medication assistance, coping with illness and meals on wheels
 Medication management
 New CVA diagnosis, needs community resources
 Noncompliant with diet, signs of depression
 Noncompliant with medications, needs community resources
 Poor home environment, leaking roof
 Psychosocial evaluation, patient suicidal
 Patient depressed and delusional
 Patient depressed and poor home environment
 Patient depressed and needs assistance with transportation
 Patient is catatonic, requires total care and needs medication assistance
 Patient's medications are using all his income
 Patient is on oxygen, has no air conditioner, is illiterate and poor

Patient is underweight, needs community resources
Patient and care person are depressed and anxious
Patient has been falling, has poor supervision
Patient lives alone, assist with discharge planning
Son request assistance with medications
Suspected drug use in the home
Unsafe poor home condition and little support
Unsanitary home environment and poor support system
Weak support system, blind
Wife is in a psychiatric hospital, can't prepare meals

APPENDIX F

PSYCHOSOCIAL NEEDS AS IDENTIFIED BY THE SOCIAL WORKER

Architectural barriers in the home
Caregiver limitations
Inadequate home setting/environment
Difficulty handling finances/ affording medications
Emotional problems/ grief, anger, depression
Needs assistance with nursing home placement or Hospice
Unsafe home environment
Alleged abuse or neglect
Marital conflict
Mental limitations impeding the patients plan of care
Limited spouse support to meet needs
Family dysfunction

VITA

Corie Hebert graduated from the University of Alabama with her master of social work degree in 1991 after receiving a bachelor's degree in psychology from Auburn University. She spent ten years working as a health care social worker in numerous health care settings, to include an acute care hospital, a cancer treatment center, a physical rehabilitation hospital, and a sub-acute hospital. She spent the last five years of her work in the field as a home health care social worker, where she supervised eight social workers with a private home health agency that covered one third of the state of Alabama.

Ms. Hebert is currently teaching at Southeastern Louisiana University in their bachelor of social work degree program. She is the Associate Child Welfare Program Coordinator. She teaches child welfare courses and additional undergraduate courses while mentoring students who have been awarded a Federal Title IV-E Child Welfare stipend. She will be awarded the degree of Doctor of Philosophy in the spring commencement at Louisiana State University.

Ms. Hebert is a busy mother of two. She volunteers as a Girl Scout troop leader and enjoys working in her yard and jogging. She plans to continue a career in academia while enjoying family life and time with friends.